

802.11g Wireless LAN MFP Server

User's Manual

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(April, 2006)**

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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

FCC Caution

This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm spacing must be provided between computer mounted antenna and person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE).

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not intended for use

None.

Contents

1. Introduction	1
2. Product Package	2
3. MFP Server with Print Server	3
4. MFP Server Installation in Windows 2000/XP	5
4.1 Hardware Installation Procedure.....	5
4.2 Software Installation Procedure	6
4.3 MFP Server Utilities	17
4.4 Install the MFP Drivers/Utilities	18
4.4.1 Never Install MFP Driver/Utilities.....	19
4.4.2 MFP Drivers/Utilities has been installed	22
5. Using the MFP	24
5.1 Share Print	25
5.2 Share Scan	26
5.3 Share Card Reader.....	27
5.4 Fax a File	28
6. MFP Manager	30
6.1 MFP Server List	30
6.2 My Favorite	33
6.3 Auto Connect List.....	35
6.4 Quick Setup	38
6.5 Option Settings	40
6.5.1 General Setting	40
6.5.2 Search for MFP Server.....	41
7. Server Configuration.....	42
7.1 Introduction	42
7.2 Search for All Available MFP Server	43
7.3 Status of MFP Server	44
7.4 Setup the MFP Server.....	45
7.5 General Configuration.....	46
7.6 TCP/IP Configuration	47
7.7 System Configuration.....	49
7.8 Wireless Configuration.....	51

7.9	MFP Server Management	62
7.10	Report	63
8.	Web Management	64
8.1	Introduction	64
8.2	Login	65
8.3	Device Setup.....	66
8.3.1	System	66
8.3.2	Printer.....	67
8.3.3	TCP/IP.....	68
8.4	Setup Wizard	69
8.4.1	System	69
8.4.2	Wireless	71
8.4.3	TCP/IP.....	78
8.4.4	Save Settings	79
8.5	System Tools.....	80
8.5.1	Load Default.....	80
8.5.2	Upgrade Firmware from Browser	81
9.	LPR Printing.....	82
10.	RAW Printing	88
11.	IPP Printing	94
11.1	Introduction	94
11.2	System Setup.....	94
11.2.1	MFP Server Side	94
11.2.2	Client Side.....	94
12.	MFP Server Installation in Windows 98SE/Me/NT	99
12.1	Software Installation Procedure	100
12.2	Server Utilities.....	106
12.3	Network Port Setup.....	107
12.4	Add Printer	108
13.	UNIX System Network	112
13.1	Introduction	112
13.2	Enable MFP Server's TCP/IP Support	113
13.3	Setup MFP Server's IP Address.....	113
13.3.1	DHCP	113

13.3.2	BOOTP.....	114
13.4	Verify MFP Server's IP Address	115
13.5	Configure Remote LPD Printing on the Host	116
14.	MFP Server Installation in MAC OS.....	118
15.	Troubleshooting	122
	Appendix: MFP Server Compatibility List.....	125

1. Introduction

Thank you for purchasing and using our 802.11g Wireless LAN MFP server. This MFP server allows your Multi-function, all-in-one printer (called for short: MFP) or printer to become a shared device on the network. Unlike many print servers, it can communicate with MFP and printer as if it is connected directly to your computer. Because of the features, all users can share print, scan, card reader and fax functions through the network. Furthermore, the MFP Server can build the bi-directional communication with MFPs and Printers so that it can help to monitor important information such as ink levels and paper levels.

The MFP server supports print, scan, card reader and fax sharing functions in the most popular operating systems: Windows 2000 SP4 above and XP SP1 above. It also supports Windows XP scanning utility and MFP vendors' scanning utilities. When you want to scan in the Windows XP, you can choose one of the utilities.

Not only be a MFP Server, this MFP Server can also be a traditional print server. It supports TCP/IP network protocol and LPR, RAW and IPP printing protocols. It can share print function in the various common network operating systems including Windows 98SE/Me/NT/2000/XP/2003, Unix, Linux and MAC OS 9.x above.

This MFP Server provides IEEE 802.11g/b wireless LAN (up to 54Mbps data transfer rate), an Ethernet network port (10/100Mbps Ethernet) and one USB 2.0/1.1 port for MFP or printer. The MFP Server can be connected to your 802.11g/b wireless network or wired network. It is very convenient and flexible to build up the MFP Server to your network environment.

The MFP server is the best solution for users to share MFP or printer conveniently and easily. It offers the most flexibility and manageability for MFP or printer on your Local Area Network at an extremely low cost and with an absolute minimum setup and maintenance required.

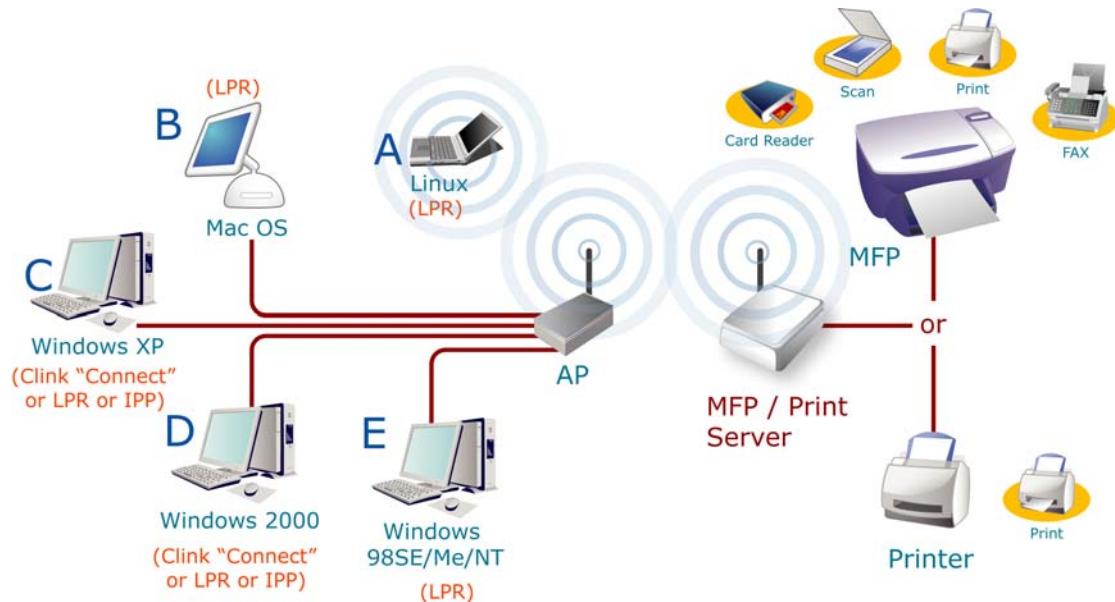
2. Product Package

This package contains the following components:

- One MFP Server
- One Antenna
- One Power Adapter
- One Quick Installation Guide
- One CD-ROM (Including all the software utilities, drivers and User's Manual)

3. MFP Server with Print Server

This MFP Server supports dual functionalities: MFP Server Mode and Print Server Mode at the same time. Users can choose one of the modes to share MFP or Printer functions through the MFP Server.



MFP Server Mode:

The MFP Server can communicate with MFP and printer as if it is connected directly to your computer. This enables users to connect to MFP for sharing print, scan, card reader and fax functions. If the MFP Server is connected to a printer but not MFP, users still can share printing function through the operation mode. The supported OS in this mode is Windows 2000 SP4 above and Windows XP SP1 above. The MFP Server mode doesn't support Windows 98SE/ME/NT, Linux/Unix or MAC OS. For the detailed applications, please refer to the following chapters.

Chapter 4: MFP Server Installation in Windows 2000/XP

Chapter 5: Using the MFP

Chapter 6: MFP Manager

Print Server Mode:

The MFP Server also supports LPR, IPP and RAW printing protocols, which enable users to share print function from MFP or Printer. The supported OS is Windows 98SE/Me/NT/2000/XP/2003, Unix, Linux and MAC OS 9.x above.

For the detailed applications, please refer to the following chapters.

Chapter 9: LPR Printing

Chapter 10: RAW Printing

Chapter 11: IPP Printing

Chapter 12: MFP Server Installation in Windows 98SE/ME/NT

Chapter 13: Unix System Network

Chapter 14: MFP Server Installation in MAC OS

4. MFP Server Installation in Windows 2000/XP

Before you start, you should have:

- One computer with Windows 2000 SP4 above and Windows XP SP1 above
- One MFP or printer with USB port and an installation CD
- One Category 5 Ethernet Cable
- One USB Cable

4.1 Hardware Installation Procedure

1. Unpack the MFP Server package and verify that all the items listed in the previous section are provided.
2. Plug the USB cable to the MFP Server with the MFP or printer that you want to share on the network.
3. Connect the MFP Server to your network by attached the network cable to the network port of the MFP server.
4. Connect the power adapter to the MFP Server. The MFP Server will perform the Power-On-Self-Test (POST) after it is powered on. When the Status LED is unlighted, the MFP Server is ready.

Note:

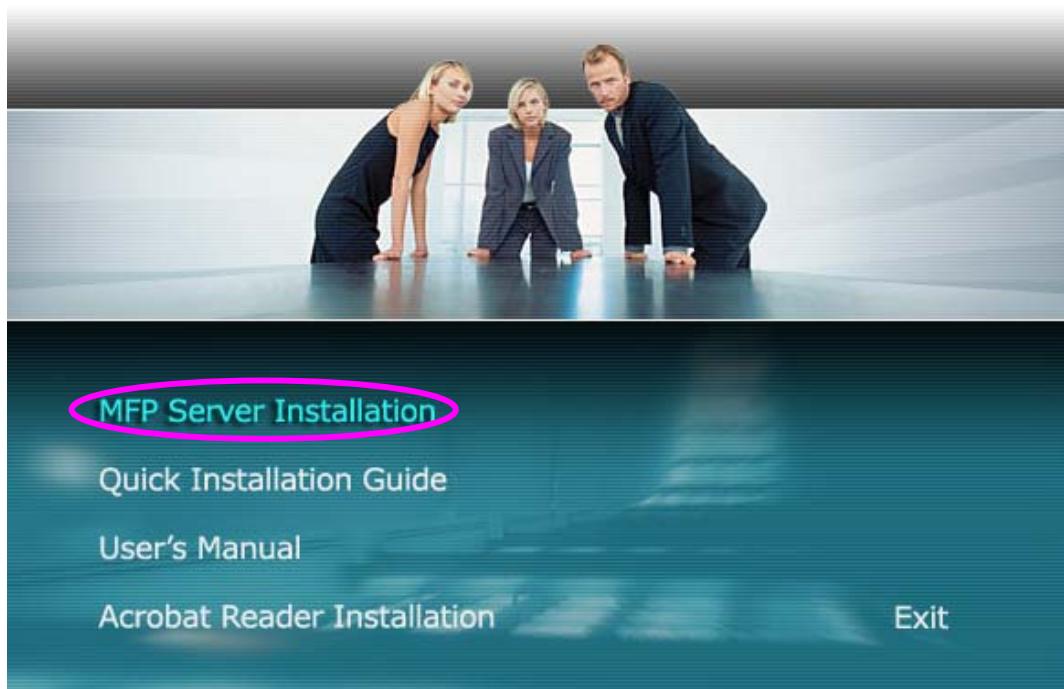
1. ***You must use the power adapter shipped along with the MFP Server, do NOT use any other power adapter from other sources.***
2. ***To prevent the compatibility problem between MFP Server and a few MFP or printer, it is recommended that you power on the MFP Server before the MFP or printer.***

4.2 Software Installation Procedure

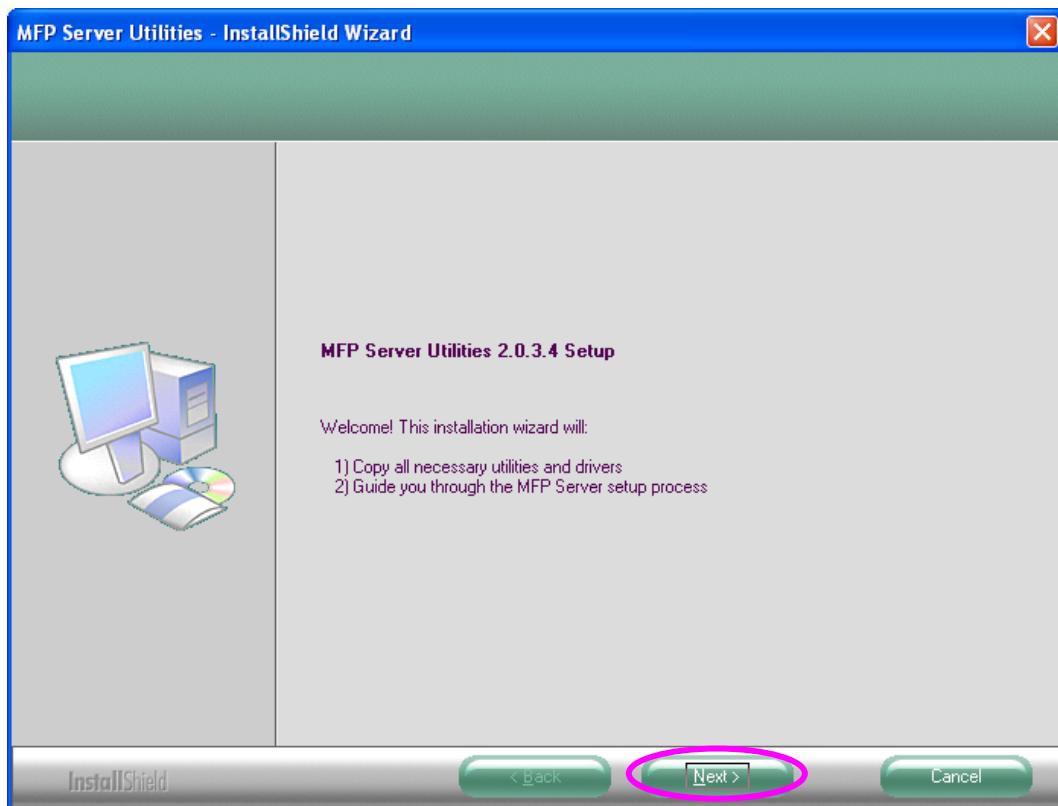
Before you start, you should check your computer's operating system. This program can be run in Windows 2000 SP4 above and Windows XP SP1 above. Please follow the steps below to start installation.

Tip: *You have to uninstall all the MFP server drivers and utilities if you have installed the previous version.*

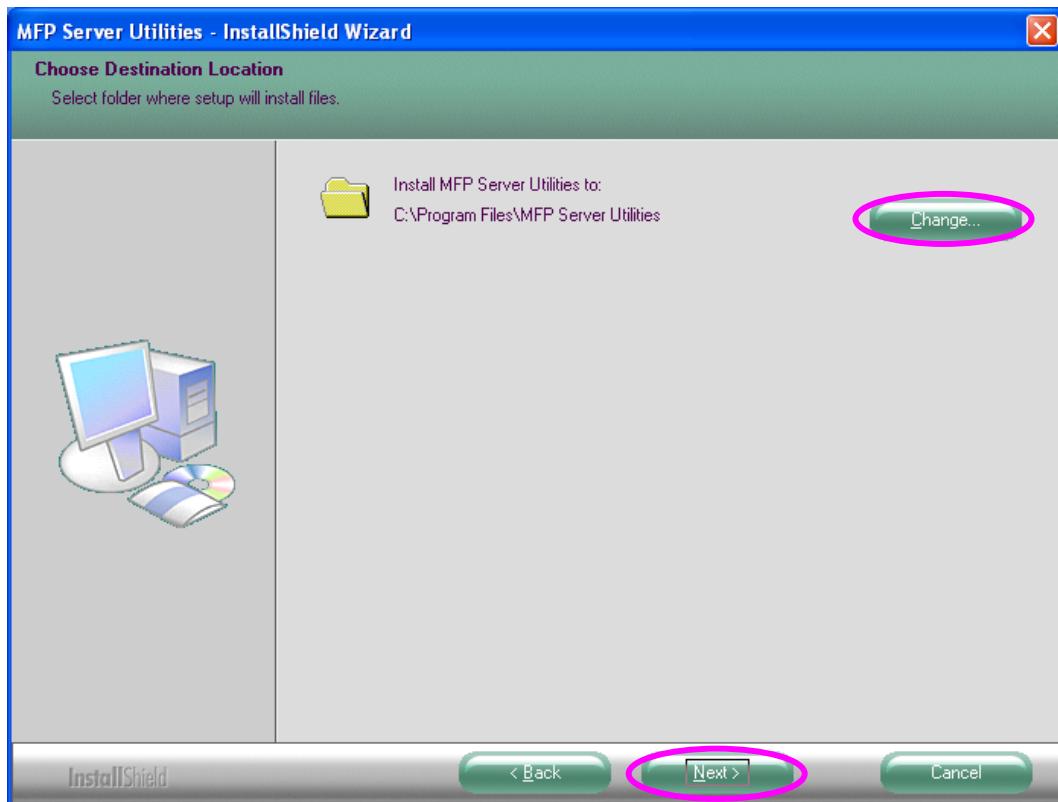
1. Insert the CD shipped along with the MFP Server into your CD-ROM drive. The Autorun.exe program should be executed automatically. If not, run Autorun.exe manually from CD-ROM drive's root directory
2. The following screen will be displayed. Click "MFP Server Installation".



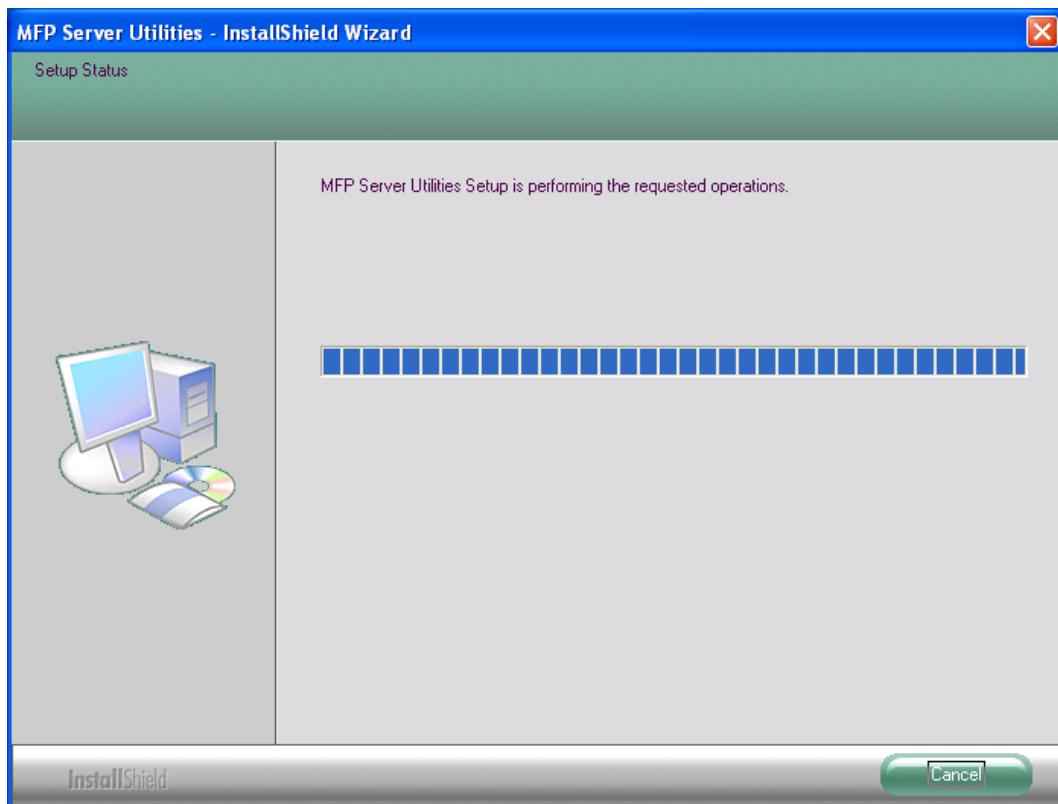
3. The “MFP Server Utilities - InstallShield Wizard” is displayed, click “Next”.



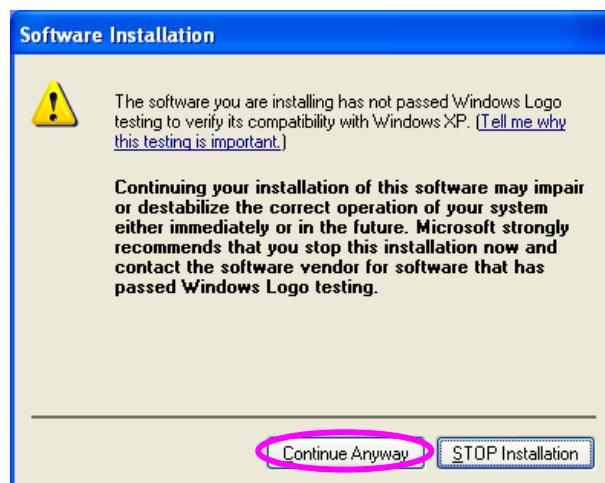
4. Click “Next” to install the MFP Server utilities in the default folder or click “Change” to specify the destination folder where you would like to install the MFP Server utilities.



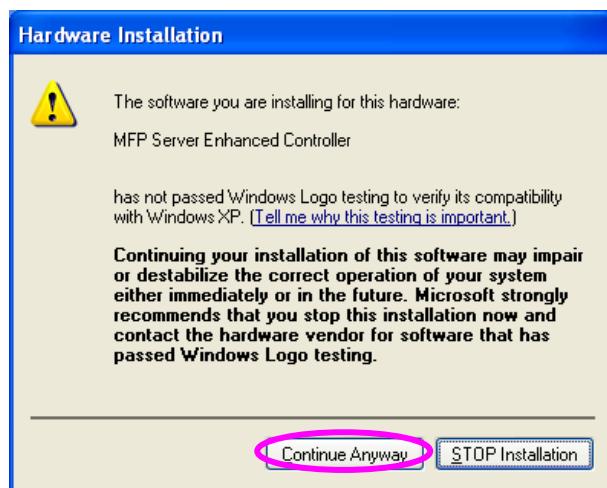
5. The system starts installing the MFP Server Utilities.



6. The MFP Server is installing the MFP Server utilities. When you find the following screen, please click "Continue Anyway".

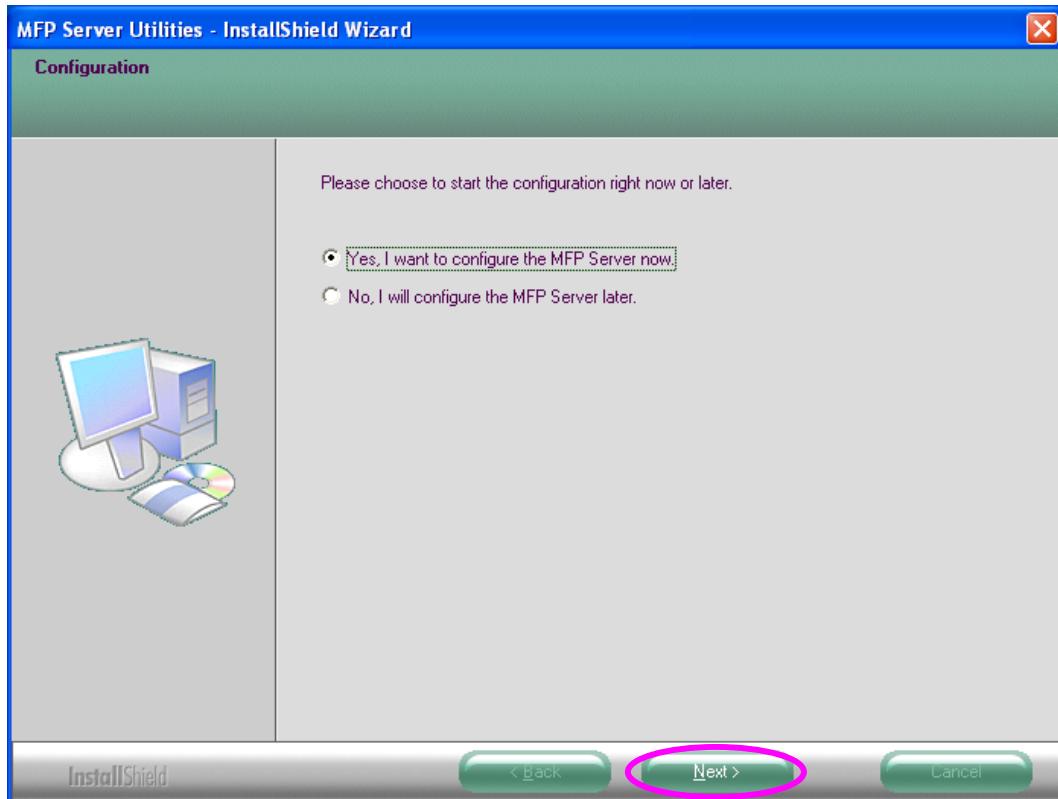


7. The MFP Server is installing the MFP Server drivers. When you find the following screen, please click “Continue Anyway”.

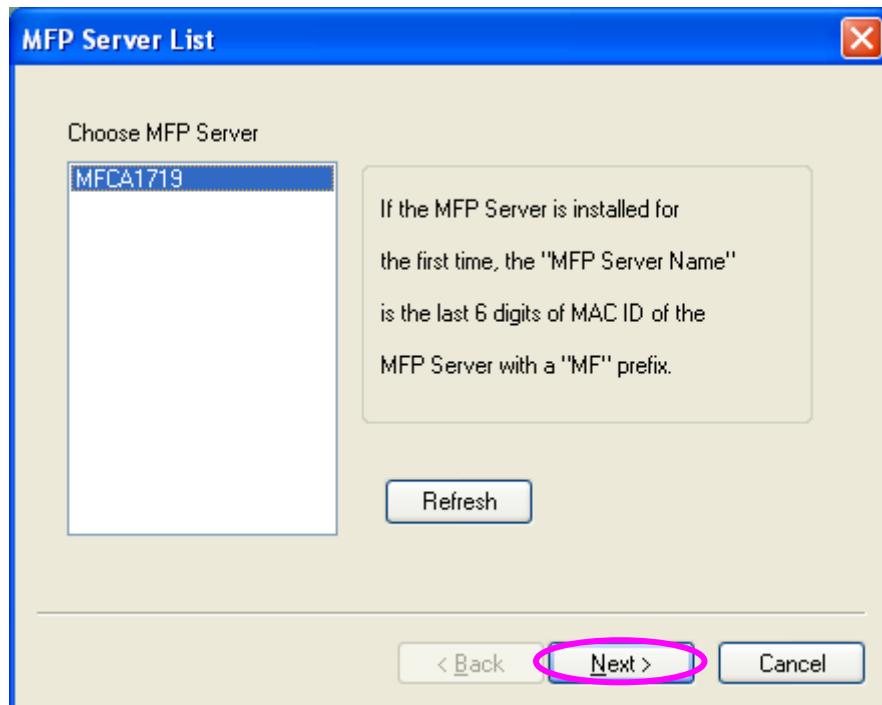


8. The “MFP Server Configuration” screen is displayed. If you want to configure the MFP Server, please click “”Next” directly. Or you can select “No, I will configure the MFP Server later” and click “Next” to complete the installation.

The following steps are for MFP Server Configuration.



9. The MFP Server List will auto search the MFP Servers in the network. Select the MFP Server you wan to setup and click “Next” to continue.

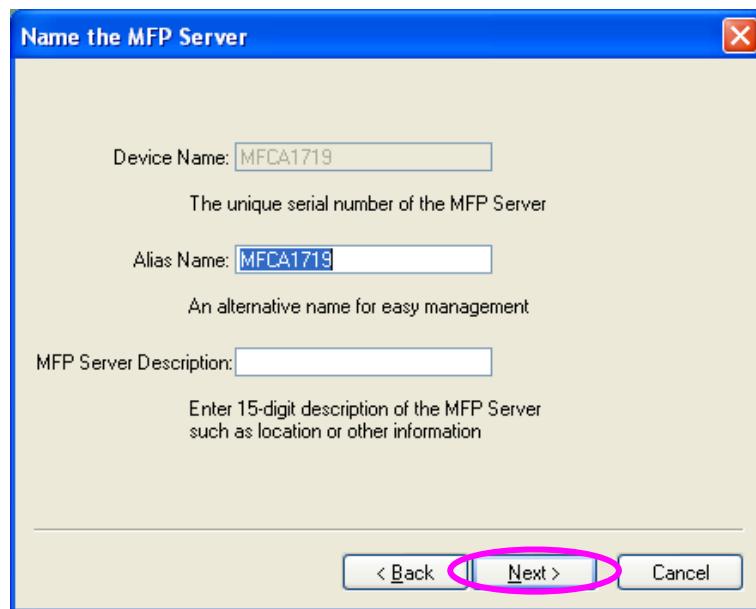


10. Enter the “User Name” and “Password” of the MFP Server you have selected to login the MFP Server. The default “User Name” is “admin”; default “Password” is “1234.”



11. Set the “Alias Name” and the “MFP Server Description” to the MFP Server here. Click on “Next”.

Note: You can define the location or other information of the MFP Server for easy to find the MFP by filling “MFP Server Description”.



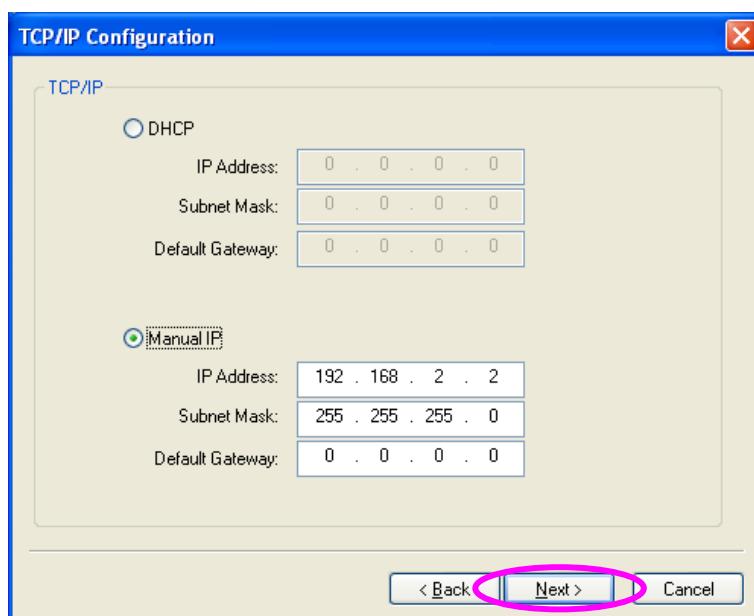
12. Please set the network settings for the MFP Server manually. By default, the network settings are as follows.

IP Address: 192.168.2.2

Subnet Mask: 255.255.255.0

If you have selected “DHCP”, the MFP Server will try to determine your network settings automatically. If a DHCP Server is present within the network, the MFP Server will automatically obtain and configure the network settings assigned by the DHCP Server. The assigned IP Address will be shown in the IP Address fields. If no DHCP Server is present within the network, please assign the network settings of the MFP Server manually. Please click “Next” once you have found appropriate network settings for the MFP Server.

Note: The MFP Server IP Address should be in the same network segment with the connected computer. If the network settings are incorrect, a message will be prompted to remind you after you click “Next”. Please make sure that you have set the right settings before going to the next step. If you don’t want to set it now, please click “Cancel” to finish the installation. You can then use the “Server Manager” utility to configure the MFP Server.



13. The “Wireless Network Settings” screen will allow you to connect your wireless MFP Server to your wireless router, access point, or point-to-point ad-hoc connection.

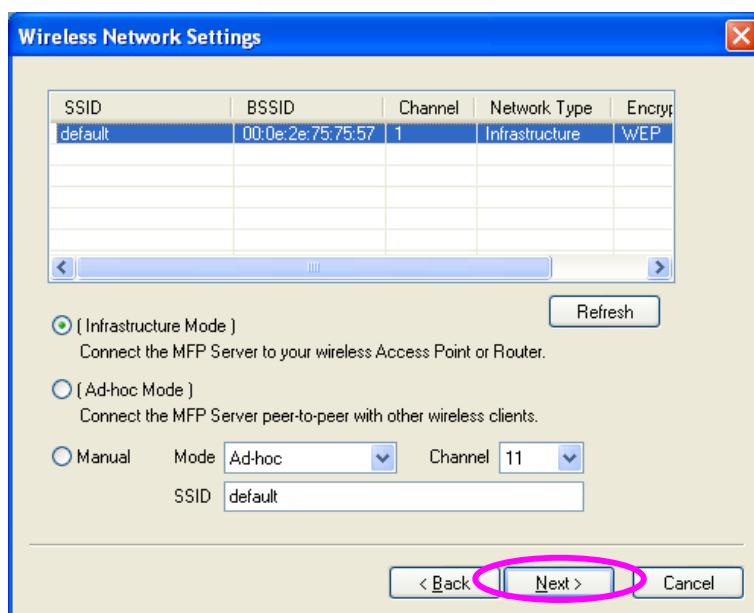
The MFP Server will automatically scan the wireless networks nearby. Please select the appropriate wireless network that you would like to connect from the list and click “Next”.

You may choose to scan for the wireless access point or router (Infrastructure mode) or the wireless adapters (Ad Hoc mode). Or, you can manually enter the wireless network information (Manual mode). By default, the wireless settings are as below.

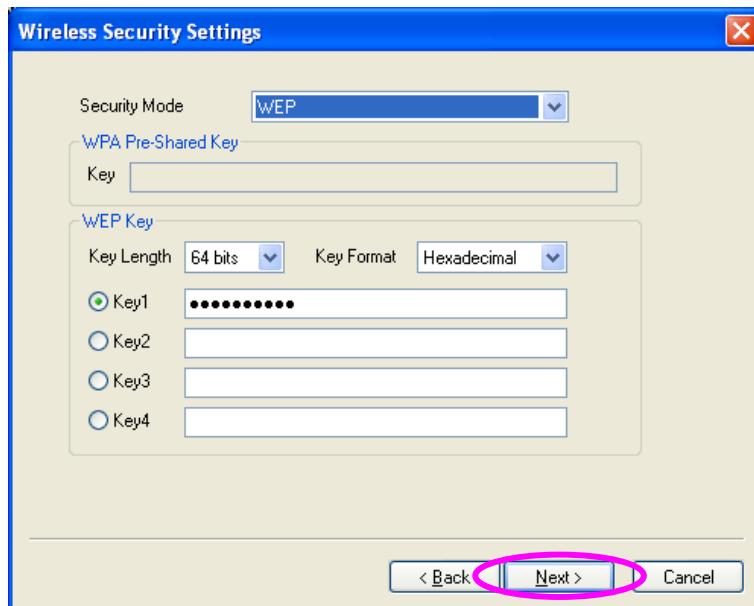
Mode: Ad Hoc

SSID: Default

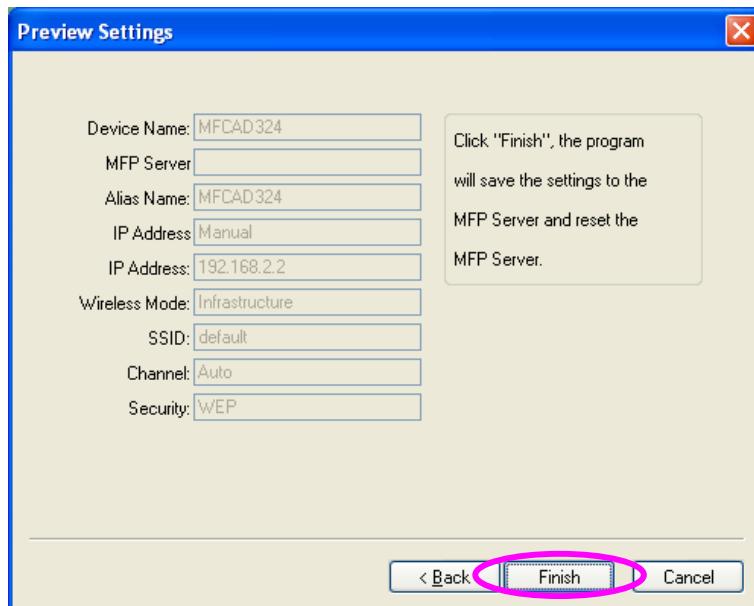
Channel: 11



14. If you chose to connect to an encrypted network, the “Wireless Security Settings” screen will be appeared. You have to select the “Security Mode” and enter the key the same as the settings on your wireless devices. For more information about the security settings, please refer to the Section 7.8.

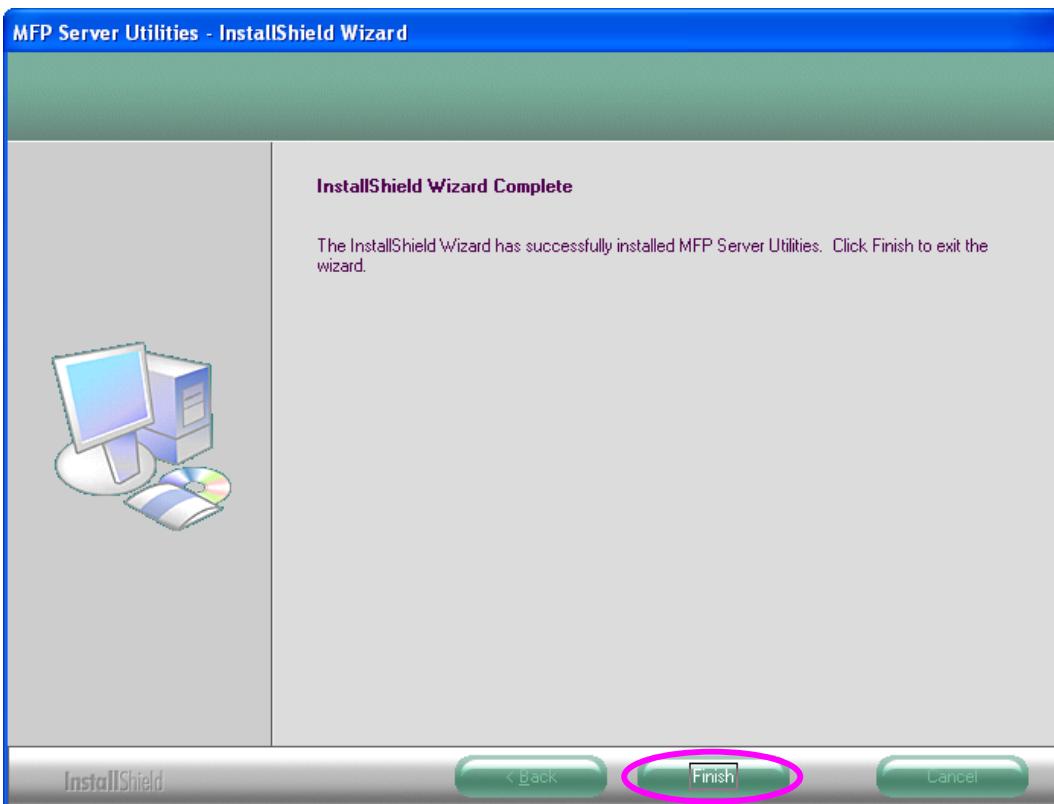


15. The configurations are finished. Please click “Finish” to apply new settings.

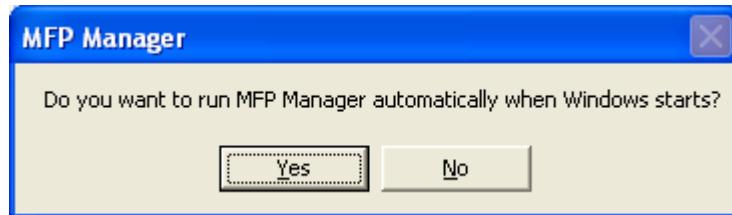


16. Click “Finish” to complete the installation.

Note: If the Windows XP Firewall in your system has been enabled, the MFP Server will automatically open ports for the MFP Server programs smoothly run in your system. It will not cause abnormal behaviors or unsafe on your system.



17. Choose if you want to run the “MFP Manager” utility automatically when Windows starts. It is recommended to enable the setting.



18. The default wireless setting is “Auto” mode. The MFP Server will detect if the MFP Server is connected to a wired LAN network through the attached Ethernet cable. If yes, it will work in wired network. To enable the wireless setting, please remove the Ethernet cable. For more detailed information about wireless setting, please refer to Section 7.8.

4.3 MFP Server Utilities

After the installation is completed, there will be three utilities and a text file in the MFP Server's Program folder.

MFP Manager – Allows you to manage the connection between the MFP and your computer for sharing MFP function.

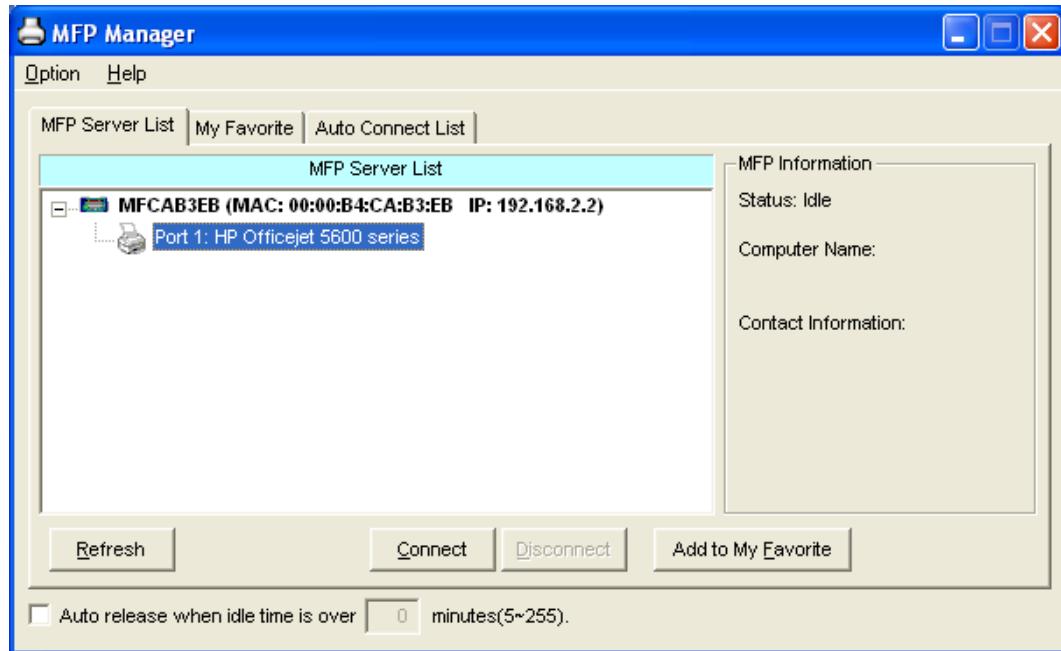
Server Configuration – Allows you to configure the MFP Server's IP Address, network protocols and other advanced features. It also allows you to manage the MFP Server.

Uninstall – Assistant for removing all installed MFP Server software programs.

About Version – Display the version of each utility including in the MFP Server software programs.

4.4 Install the MFP Drivers/Utilities

When the installation is completed, the “MFP Manager” will be popped up. It will automatically find the MFP Servers and the connected MFPs in the network and show it in the “MFP Server List”.

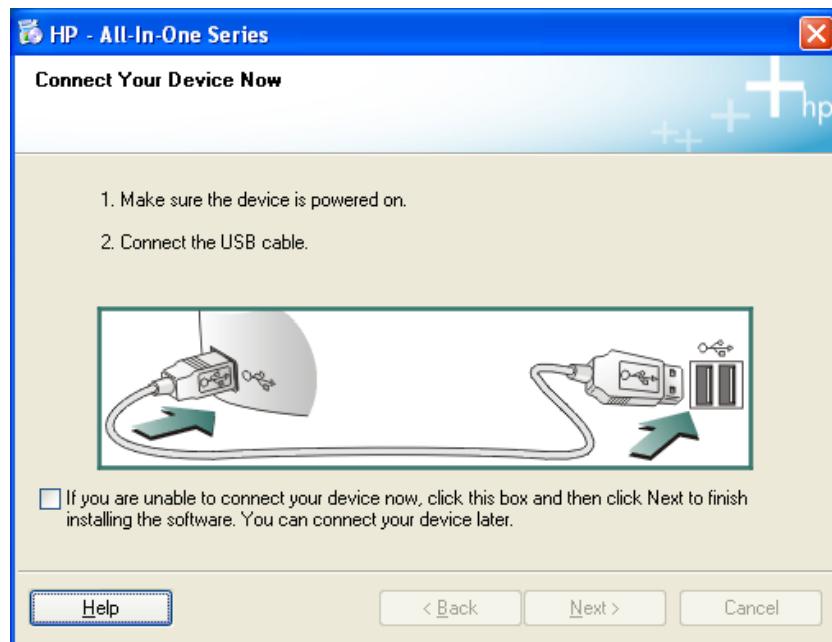


Before you start to install the MFP selected from the “MFP Server List”, please check your computer’s MFP installation status.

- You never install the MFP drivers/utilities; please refer to the Section 4.4.1.
- You have installed the MFP drivers/utilities; please refer to the Section 4.4.2.

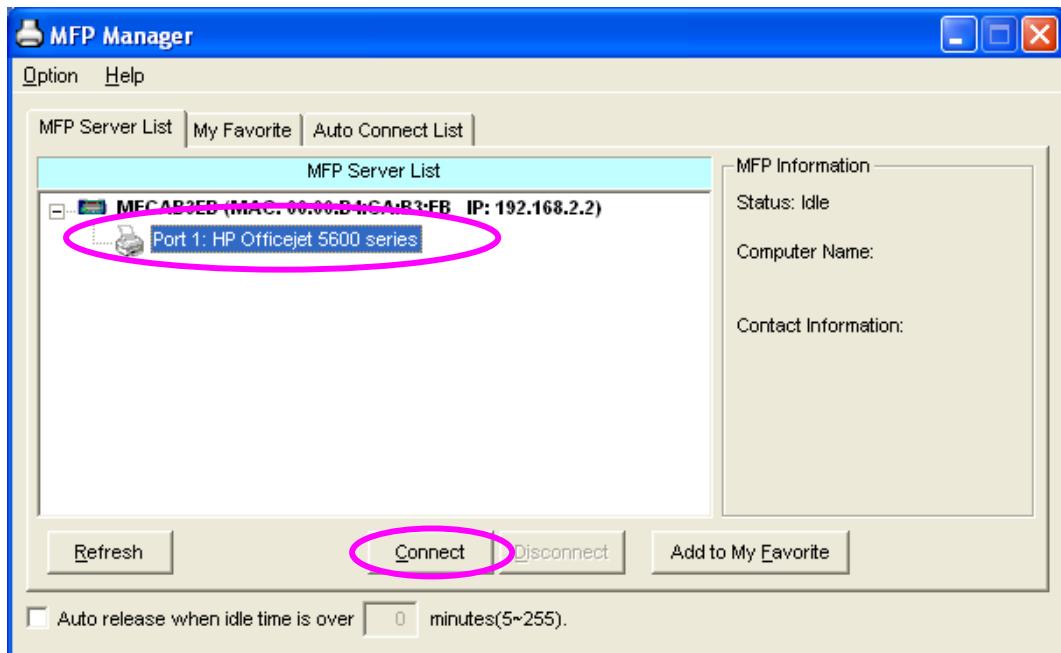
4.4.1 Never Install MFP Driver/Utilities

Before the installation, please read the manual of the MFP. Some MFP requires users to install the drivers/utilities before connecting the MFP to your computer. Some MFP requires connecting the MFP to your computer during the installation. Please refer to the below illustration of “HP ALL-In-One Series” which is the screen displayed during the installation.



To connect the MFP to your computer through the MFP Server just like you have directly connected the MFP to your computer through the USB cable, you can follow the steps below.

1. Select the MFP that you wan to install in the “MFP Server List” and click “Connect” button.

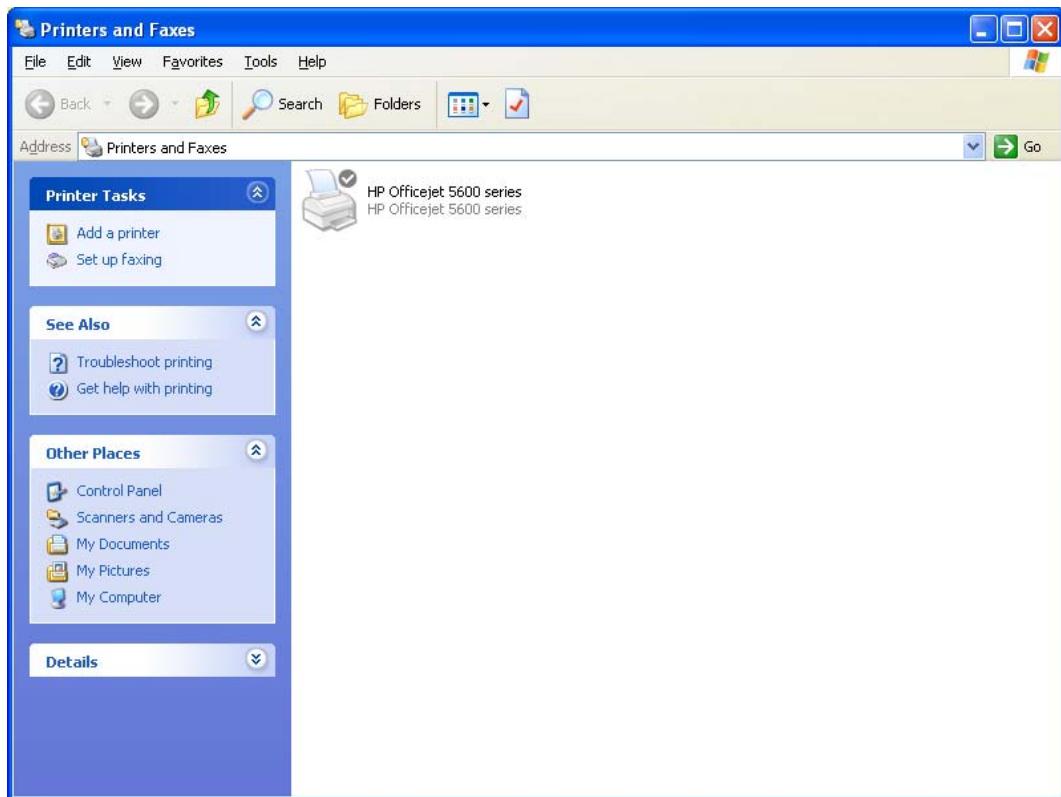


2. The Windows will detect the new hardware and prompt to install the MFP Server drivers and then the MFP drivers. When the system stops prompting, the drivers are all installed. If the system can't find the MFP driver, please insert the installation CD of the MFP and designated to find drivers in the CD.

Note: If the MFP you have connected is a composite device, the system will install the driver for composite device at first. The following screen will be popped up, please click “Continue Anyway”. When the system stops prompting, the drivers are all installed. If the system can't find the MFP driver, please insert the installation CD of the MFP and designated to find drivers in the CD.

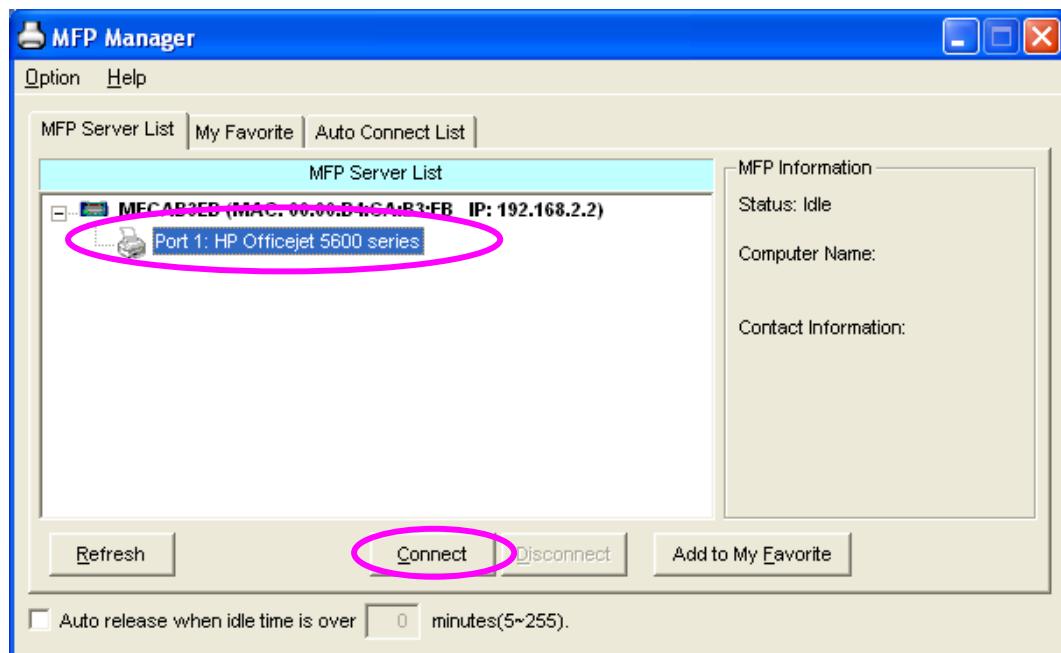


3. After you have completed the MFP installation, you will see the MFP is added to the “Printers and Faxes” in Windows.



4.4.2 MFP Drivers/Utilities has been installed

1. To bundle the MFP drivers/utilities that you have installed to the MFP Server, please follow the steps below. Select the MFP that you wan to install in the “MFP Server List” and click “Connect” button.



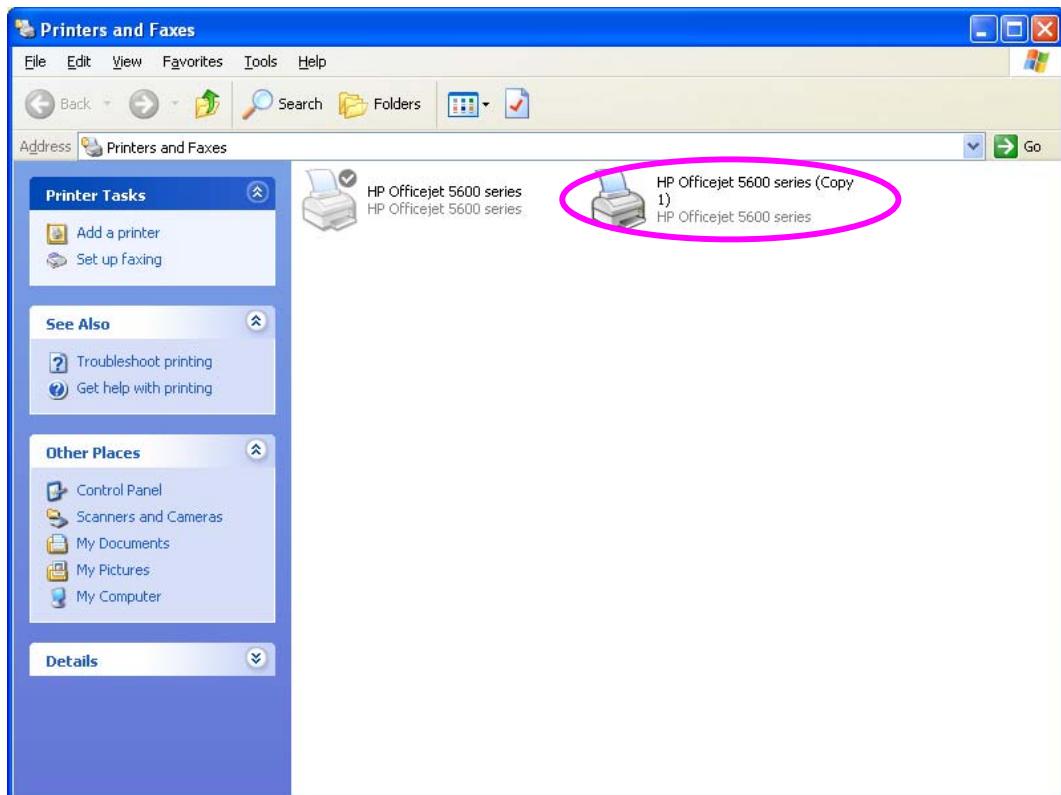
2. The Windows will detect the new hardware and prompt to install the MFP Server drivers and then the MFP drivers. When the system stops prompting, the drivers are all installed. If the system can't find the MFP driver, please insert the installation CD of the MFP and designated to find drivers in the CD.

Note: If the MFP you have connected is a composite device, the system will install the driver for composite device at first. The following screen will be popped up, please click “Continue Anyway”. When the system stops prompting, the drivers are all installed. If the system can't find the MFP driver, please insert the installation CD of the MFP and designated to find drivers in the CD.



3. After the installation, a copy of the MFP will be added to the "Printers and Faxes" in Windows.

Tip : *The new copy of the MFP is bundled to the MFP Server. Please use the MFP to share print, scan, card reader or fax functions through the network.*

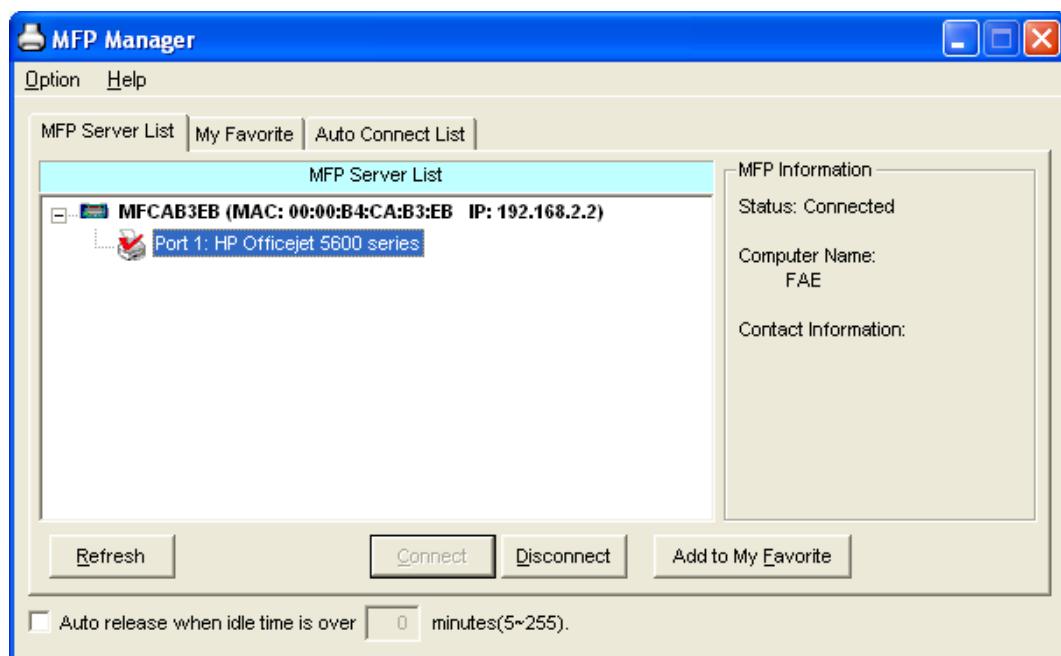


5. Using the MFP

After you have followed the install wizard to finish the MFP installation, the MFP is now connected to your computer. You can start sharing print, scan, card reader or fax function provided by the MFP.

Tip 1: *If you have finished using the MFP, please click “Disconnect” to release the MFP. Another users can’t use the MFP until the MFP is released*

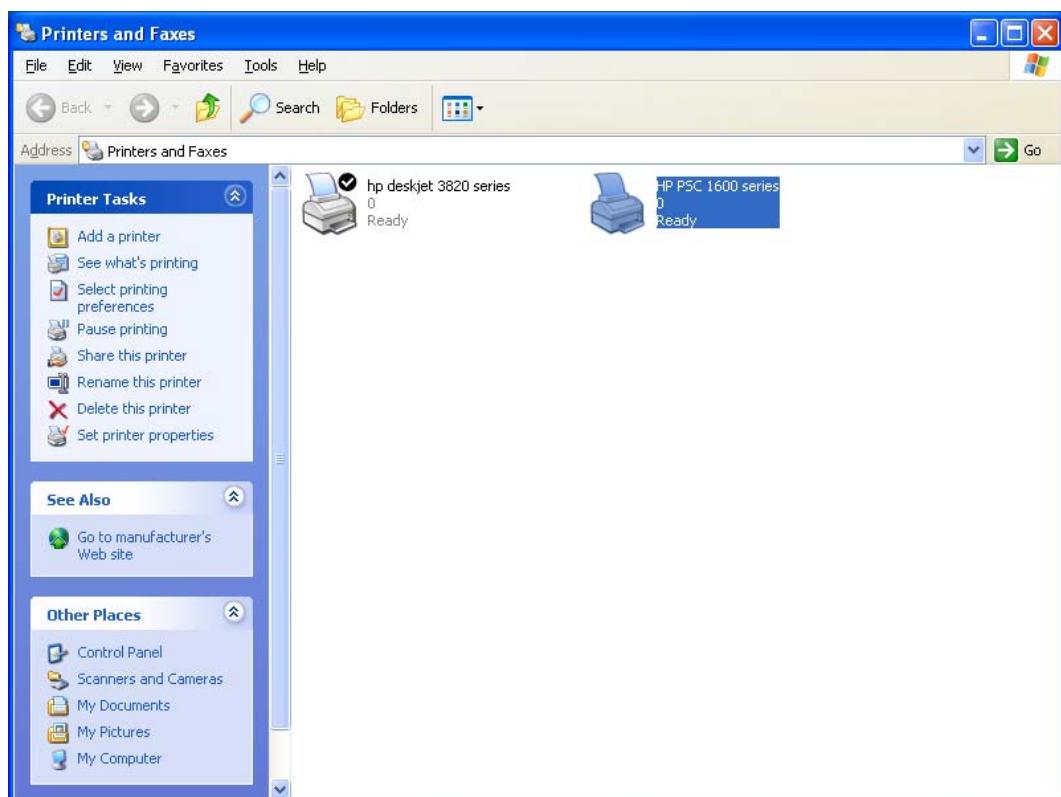
Tip 2: *It is recommended to enable “Auto Release” setting. The MFP Server will auto release your connection to the MFP after a period of idle time that you have assigned. So the MFP will not be occupied too long and other users can share the MFP frequently. Please refer to Section 6.1 for more information.*



5.1 Share Print

The MFP will be added to “Printers and Faxes” in the Windows after the MFP is installed. When you have connected to the MFP by clicking “Connect” in the “MFP Manager”, the MFP Server will auto create the connection between the MFP and your computer and then you can print a document just follows the same steps as usual.

Tip: *If you have sent a printing job to the MFP while the MFP is connecting by a user, you may be prompted that the device is not found or the document is failed to print. Please resend the printing job after the MFP is idle or not being connected.*



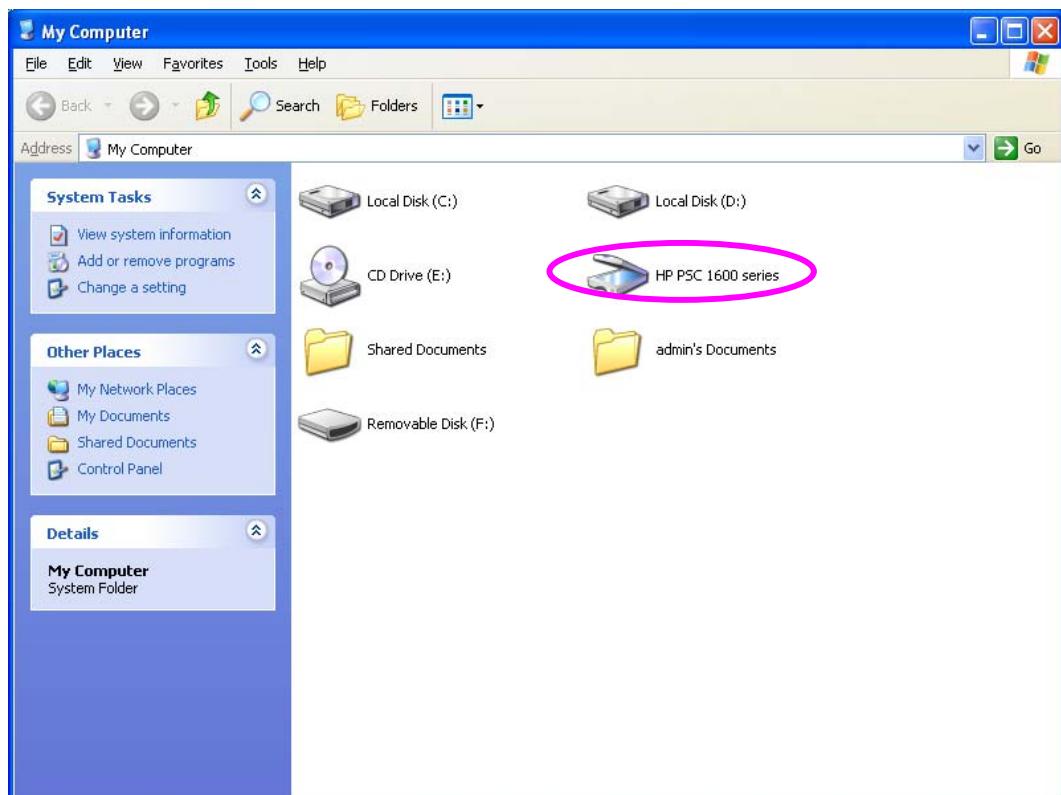
5.2 Share Scan

Most of the MFP provides scan utility for users. You can scan pictures or documents through the utility. In Windows XP, user can also scan from Windows XP scanning utility. You can also use third party scanning utilities such as Photoshop, Photoimpact, Paint Shop Pro, etc.

An example: HP 1600 Series Utilities

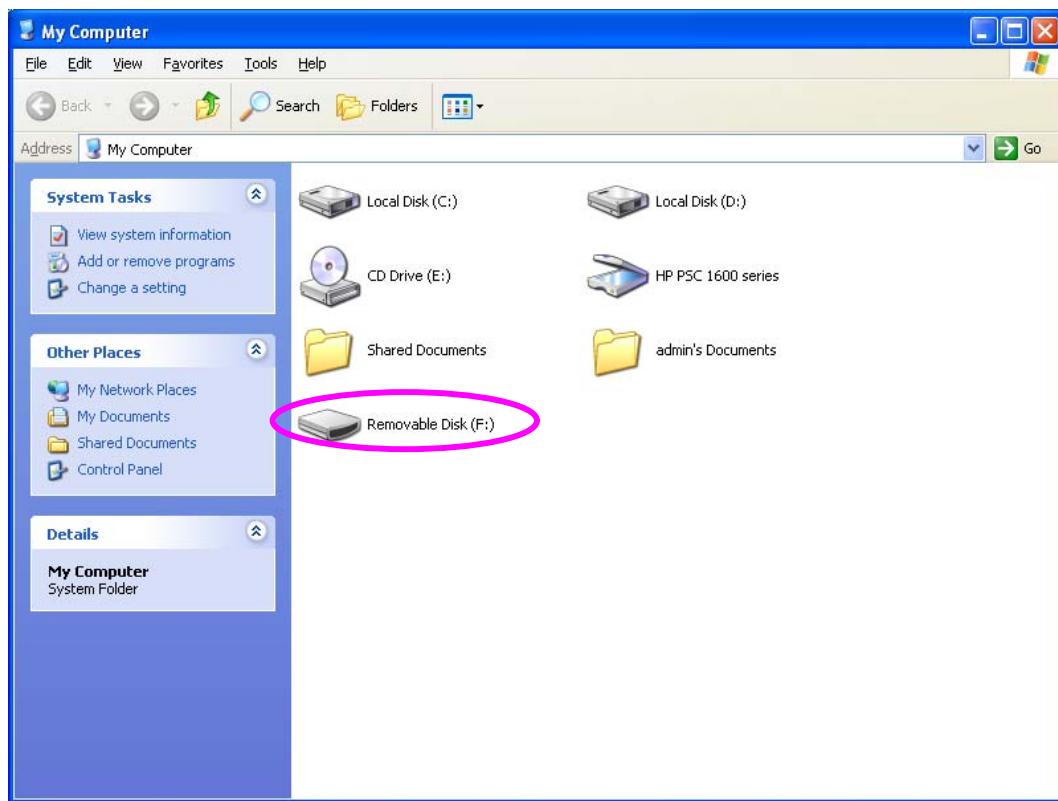


Windows XP Scanning Utility



5.3 Share Card Reader

If the MFP supports card reader function, you can read the files from the plugged card reader through the MFP Server.



5.4 Fax a File

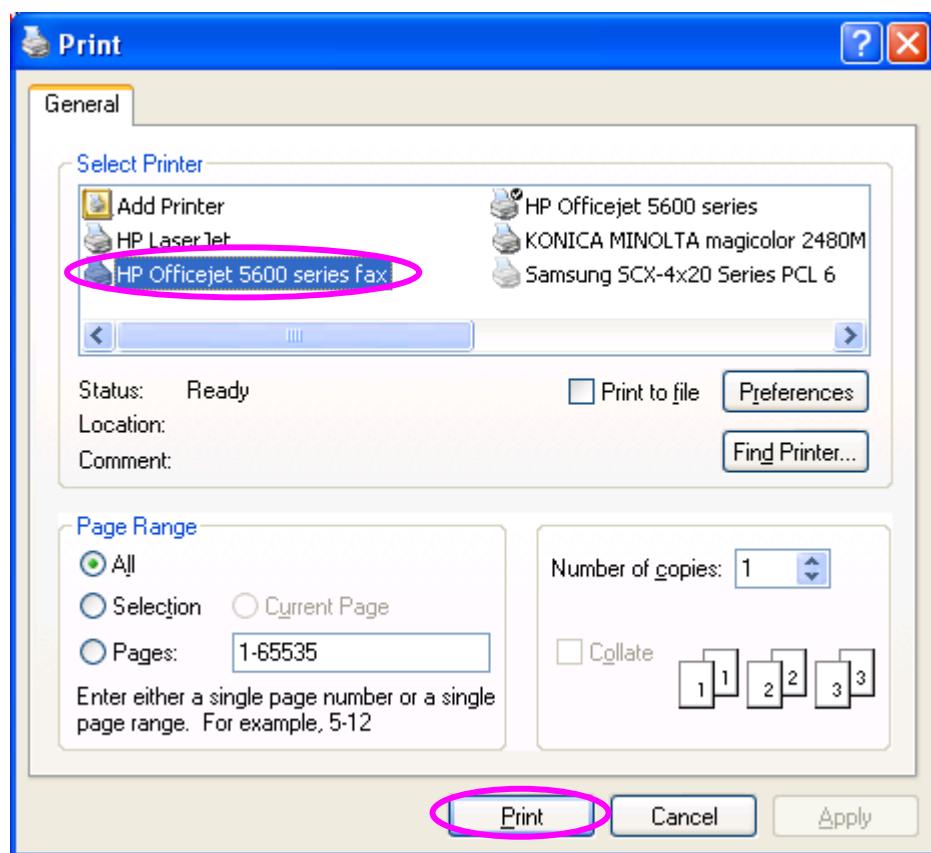
If the MFP supports fax function, you can fax files from your computer to the fax number you designated.

An example: Fax through HP Officejet 5600 Series

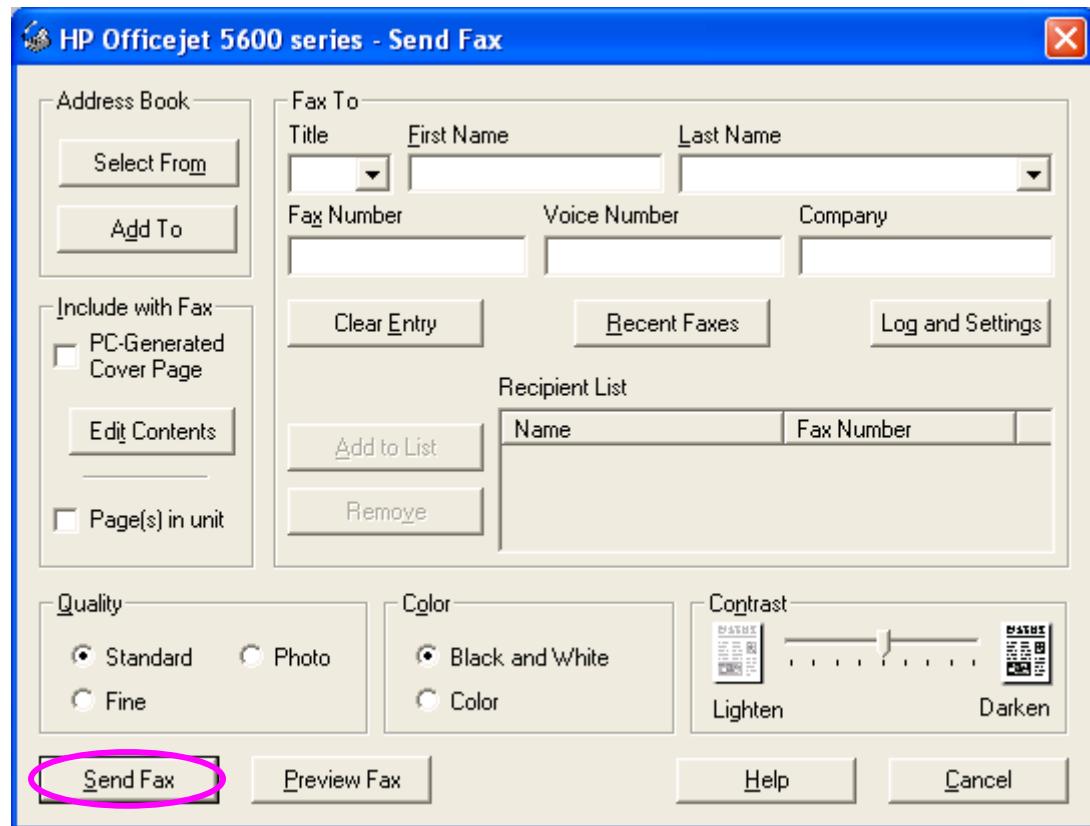
After the MFP is installed, there is a fax device will be added to “Printers and Faxes” in the Windows. When you have connected to the MFP by clicking “Connect” in the “MFP Manager”, you can fax a file through the MFP Server to the fax device.

Procedures to fax a file

1. In the Microsoft Office or other programs, select “Print” from the “File” menu.
2. The following screen will be popped up, select the fax device and then click “Print”.



3. The “Send Fax” screen is popped up, please configure the file and enter the fax number. Click “Send Fax” to fax the file.



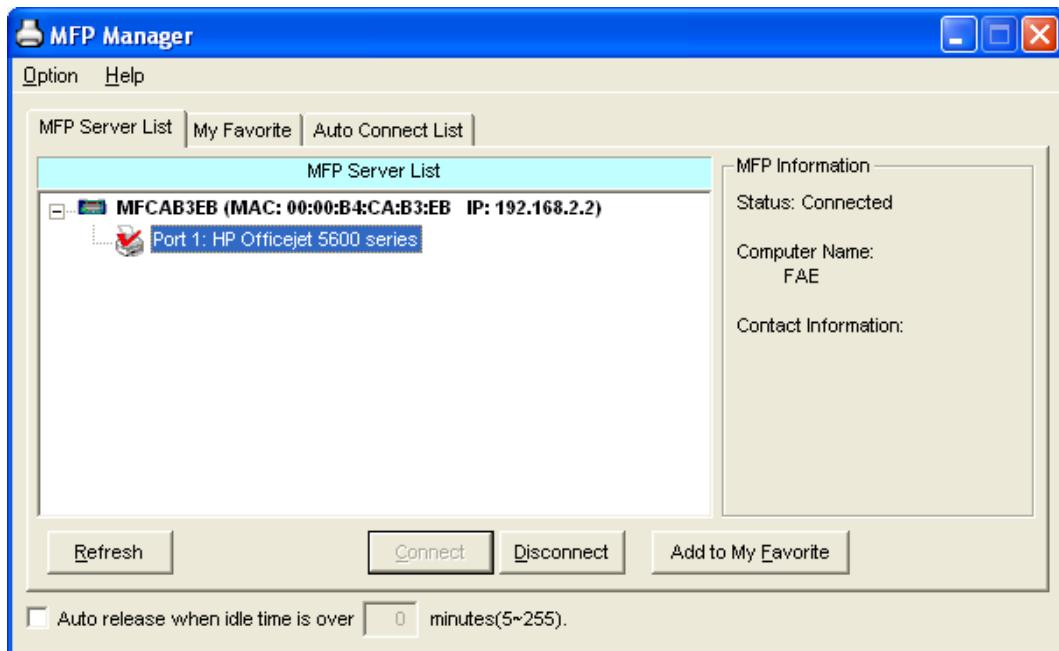
6. MFP Manager

6.1 MFP Server List

The “MFP Manager” can automatically find the MFP server in the network and show it in the MFP Server List. Users can select a MFP and click “Connect” to connect the MFP just like you have directly connected the MFP to your computer through USB cable. It also displays the information of the connection status.

When you don’t want to use the MFP or Printer, please click “Disconnect” so that other users can use the device. Or you can enable the “Auto Release” setting, so that the MFP Server will release your connection after a period of idle time that you have assigned.

If you unplug the USB cable or turn off the MFP while using, the device will not display in the list. After you reconnect the USB cable or turn on MFP, you have to click “Refresh” and “Connect” buttons in the “MFP Manager” to recover the connection.



MFP Server List

MFP Server List The “MFP Server List” will list all the MFP Servers within the network. You can find the information of the MFP Servers including “MFP Server Name”, “MAC ID”, “IP Address” and the device that is connected to the MFP Server.

MFP Server/MFP Information When you are clicking on the “MFP Server” in the “MFP Server List”, you will see the “MFP Server Description” and the “Idle Timeout” setting for the MFP Server.

MFP Server Description – It is a description that can help users to identify where or what the MFP Server is.

Idle Timeout – From here, each user can know his/her auto release setting. To avoid occupying the MFP overtime, each user can enable the “Auto Release” setting at the bottom of the “MFP Manager” utility. It is used to automatically disconnect the connection after the MFP is idle for a specified period of time. By default, it is never released.

When you are clicking on the “MFP” in the “MFP Server List”, you will see the information including “Status”, “Computer Name” and “Contact Information”.

Status – It displays the status of the MFP including Connected, Idle and Busy. When the status is “Connected”, it indicates that you are connecting the MFP. When the status is “Idle”, it indicates that the MFP is not being used. When the status is “Busy”, it indicates that other user is using the MFP to scan, print, or etc.

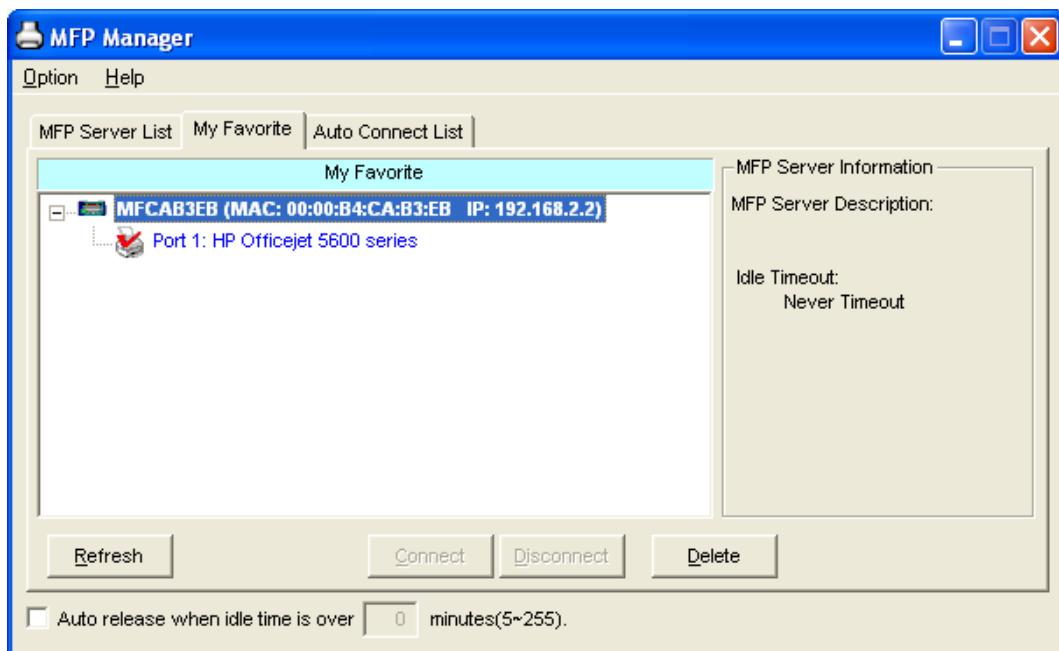
Computer Name – It display the computer name of the user who is connecting to the MFP.

Contact Information – When the current user has set his “Contact Information”, you can see it here. You can contact with the current user for asking to disconnect the MFP.

Refresh	Refresh the “MFP Server List” immediately.
Connect	Let the MFP be connected to your computer.
Disconnect	Disconnect the selected MFP.
Add to My Favorite	Add the MFP Servers that you frequently use to “My Favorite List”.
Auto Release when idle time is over xx minutes (5-255)	To avoid you occupy the MFP overtime; you can setup auto release function. It is used to automatically disconnect the current connection after the MFP is idle for a specified period of time. By default, it is never released. It is recommended to enable the setting after the MFP and MFP Server are installed completely so that the MFP resource will not be occupied permanently.

6.2 My Favorite

You can add the frequently use MFP Servers to “My Favorite” list. The MFP Server in the list will be added to the quick link list when you right click the MFP Server icon in the system tray. Please refer to Section 6.4 to know more about the quick setup functions.



My Favorite List

My Favorite List The “My Favorite List” will list your favorite MFP Servers. You can find the information of the MFP Servers including “MFP Server Name”, “MAC ID”, “IP Address” and the device that is connected to the MFP Server.

MFP Server/MFP Information The information listed here are the same as MFP Server List. Please refer to Section 6.1.

Refresh Refresh the “MFP Server List” immediately.

Connect Let the MFP be connected to your computer.

My Favorite List

Disconnect	Disconnect the selected MFP.
Delete	Delete the selected MFP Server from the “My Favorite List”.
Auto Release when idle time is over xx minutes (5-255)	To avoid you occupy the MFP overtime; you can setup auto release function. It is used to automatically disconnect the current connection after the MFP is idle for a specified period of time. By default, it is never released. It is recommended to enable the setting after the MFP and MFP Server are installed completely so that the MFP resource will not be occupied permanently.

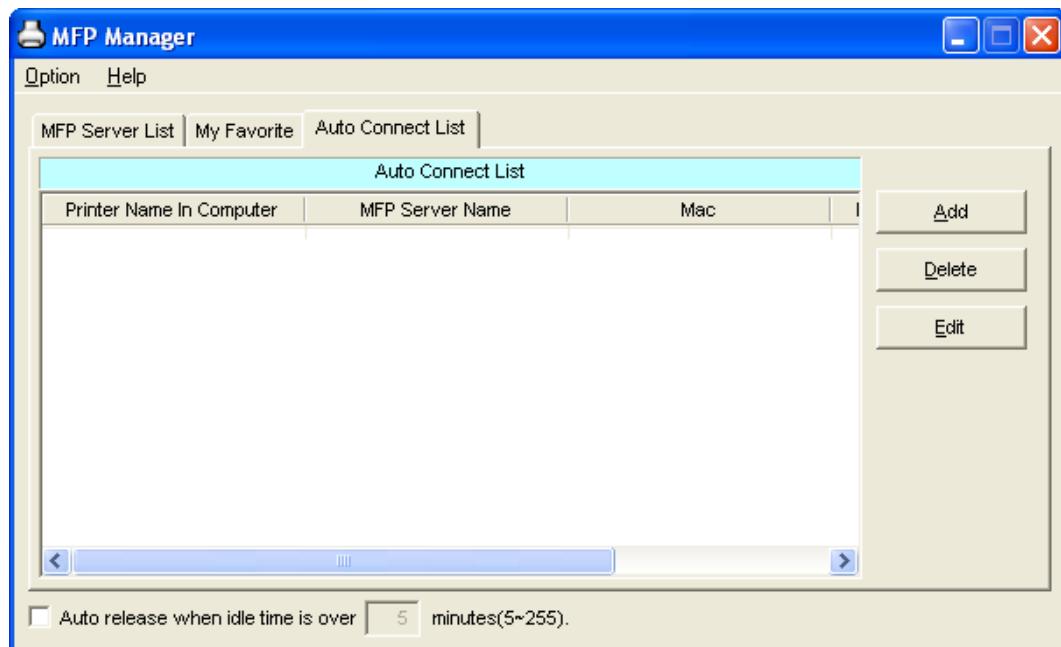
6.3 Auto Connect List

To let the system occupy the MFP server automatically when you want to print a document just like the behavior of using traditional print server, you can add the MFP into your Auto Connect List. The system will send the printing jobs to the MFP when the MFP Server is idle and not being connected.

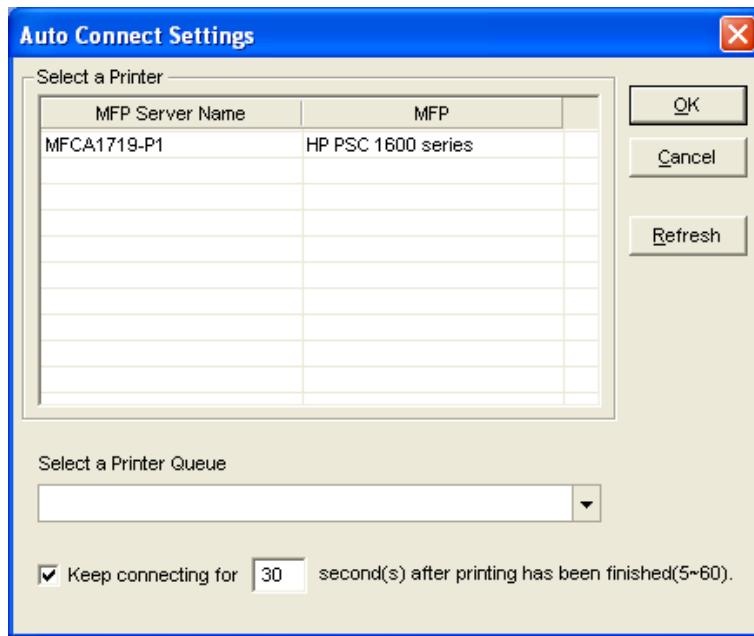
Tip: *If you have sent a printing job to the MFP while the MFP is connecting by a user, you may be prompted that the device is not found or the document is failed to print. It also happens in some MFPs or printers even though the MFP is not connecting by a user. Please follow the message to retry and the MFP will queue your printing job in your computer spooler. The MFP Server will then print the job after the MFP is idle or disconnected.*

To add the MFP to the Auto Connect List, please follow the steps below.

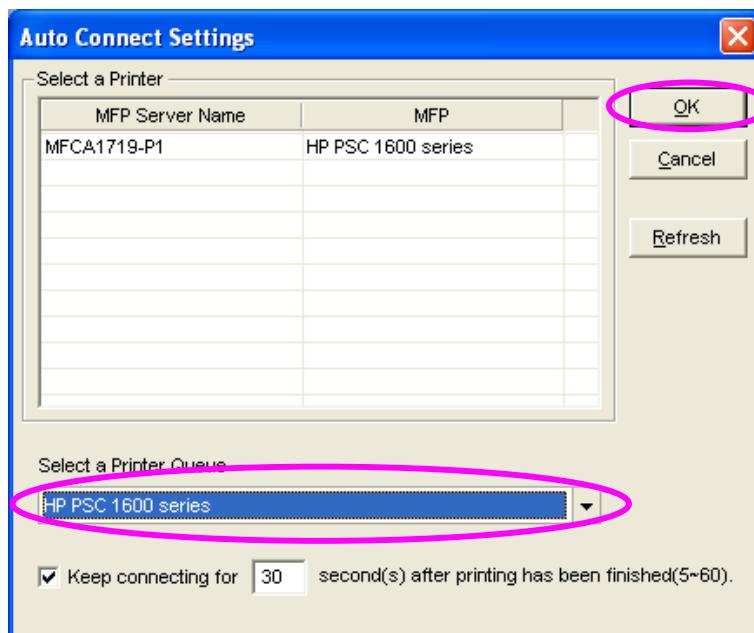
1. Click “Add” from the “Auto Connect List”.



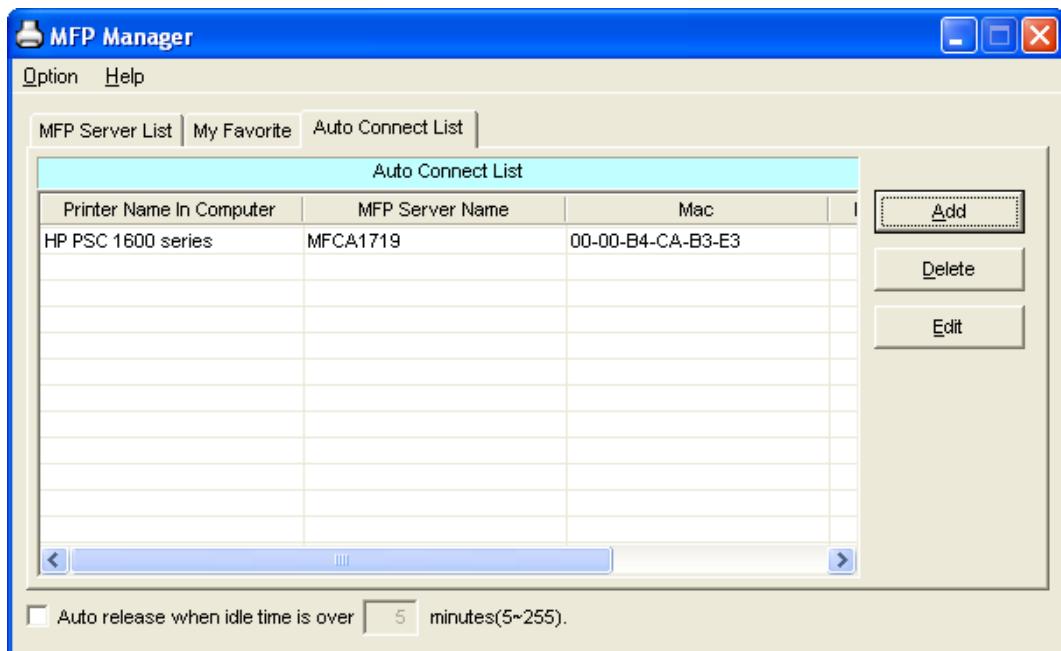
2. The MFP Servers within the network will be displayed in the following screen. Select the MFP Server you would like to add to the list.



3. Select the MFP that is connected to the selected MFP Server. Click "Ok". Note that in some cases, new coming printing jobs cannot be printed because the MFP is already disconnected. It will cause unformatted messages to be printed out. "Keep connecting for 30 second(s) after printing has been finished (5-60)" is enabled by default. It will help to avoid this kind of situation.

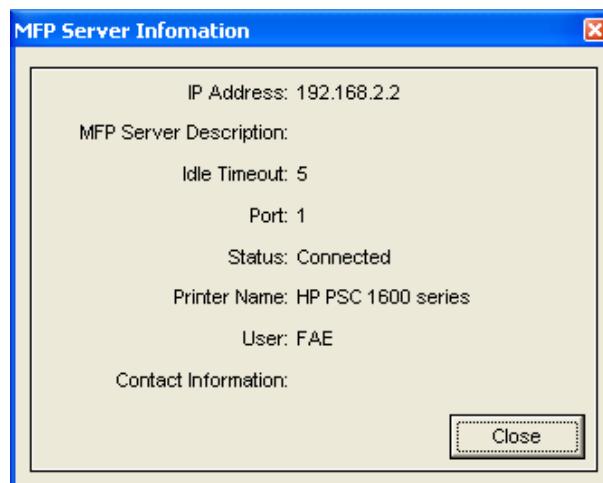


4. The setup is finished.



6.4 Quick Setup

Right click on the MFP Server icon in the system tray you can see the MFP servers you have designated to “My Favorite List”. You can directly connect or disconnect the MFP and check the MFP information from the here easily.



Quick Setup

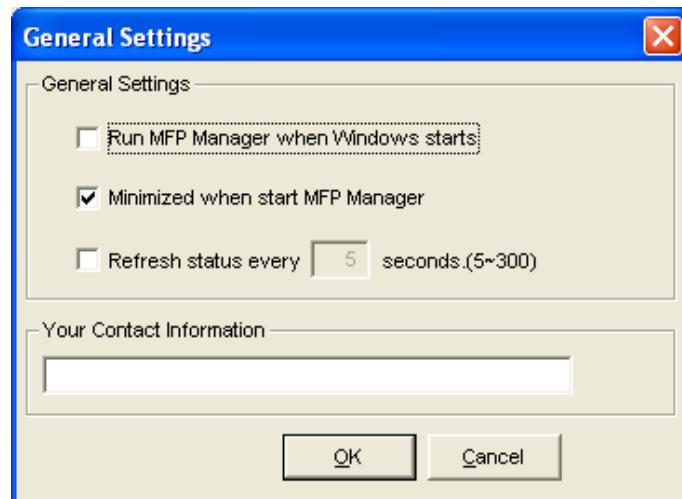
Status	The current status of the MFP will be displayed here. “Connected” indicates that you are connecting to the MFP. “Busy” indicates the MFP is being used. “Idle” indicates that the MFP is free to use by any users.
Connect	If the MFP is free to use, the “Connect” will be available to click for occupying the MFP. Or it will be grayed.

Quick Setup

Disconnect	Disconnect the selected MFP. The “Disconnect” will be available only for the current user.
Information	To check more information about the MFP Server and the MFP, please click this button. The information will be listed as the illustration above.

6.5 Option Settings

6.5.1 General Setting



General Setting

Run MFP Manager when Windows starts Execute the “MFP Manager” when Windows starts every time. By default, it is enabled.

Minimized when start MFP Manager Minimized the “MFP Manager” to an icon in the system tray when you start the “MFP Manager”. By default, it is disabled.

Refresh status every xx seconds. (5~300) Setup the refresh interval for device status update. By default, it is disabled.

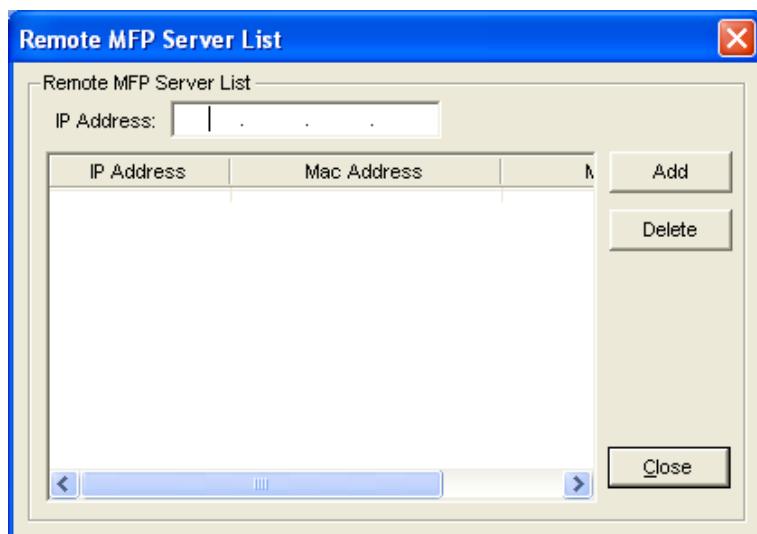
Your Contract Information Enter your contact information here. When you connect to the MFP, your contact information will be displayed in the right side of the program for other users to contact you.

6.5.2 Search for MFP Server

If there is an MFP Server is not in the network as your computer, you can enter the IP Address of the MFP Server to do the remote search. The MFP Server in the “Remote MFP Server List” will be added to the “MFP Server List” for you to configure.

Note:

If the remote MFP Server you have searched is behind NAT Router, the MFP Server may not operate normally.



7. Server Configuration

7.1 Introduction

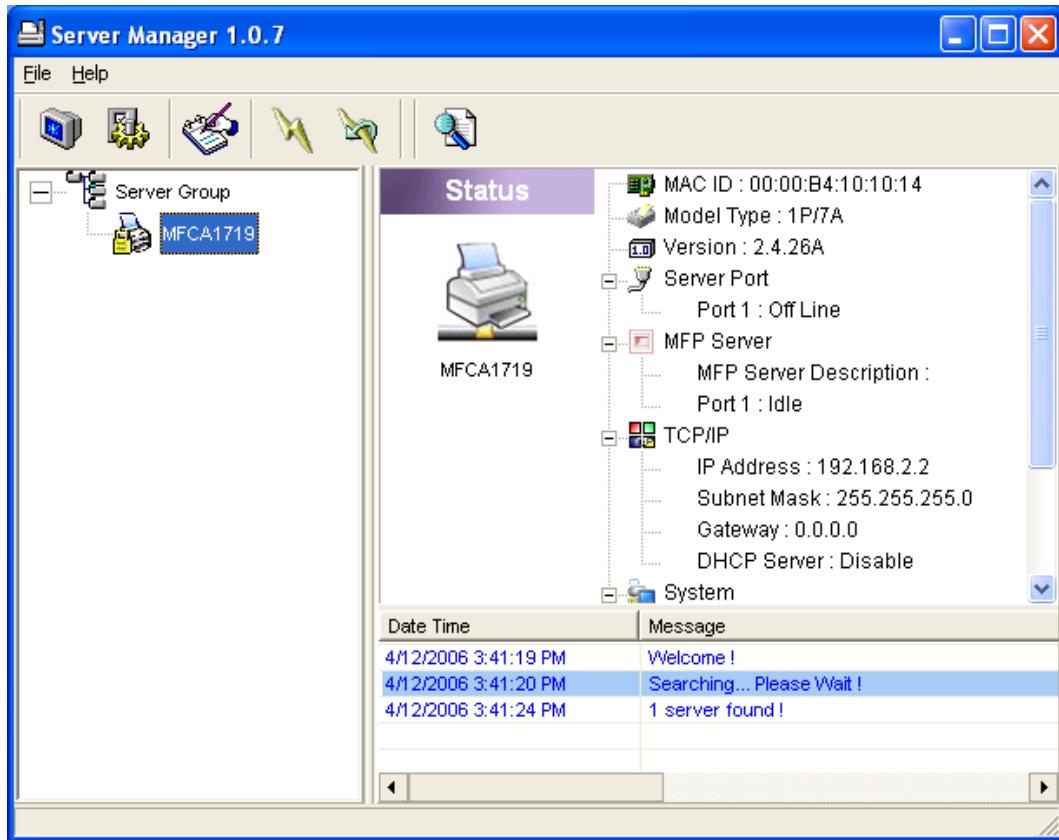
This chapter introduces MFP Server's system configuration utility in Windows environment. This utility provides the most complete management and configuration functions on the MFP Server side. This utility only provides configuration functions for MFP Server itself; it does not include configuration functions for client side or other file server in the network environment.

The Configuration Utility provides the following configuration and management functions:

- **Search MFP Server:** Search All Available MFP Servers on the Network.
- **Status:** Display MFP Server Network Status.
- **General Configuration:** Configure general settings about the MFP Server such as Server Name, Password, etc.
- **TCP/IP Configuration:** IP Address and DHCP Server Configuration.
- **System Configuration:** MFP Server Network Ability Setting and Firmware Upgrade.
- **Wireless Configuration:** Search for the available wireless networks and configure the wireless settings of the MFP Server for the wireless connection.
- **MFP Server Management:** For administrator to manage the MFP Server. Administrator can force disconnect the current connection of the MFP Server.
- **Report:** List the some information of All Available MFP Servers on the Network.

We will explain each function separately in the following section.

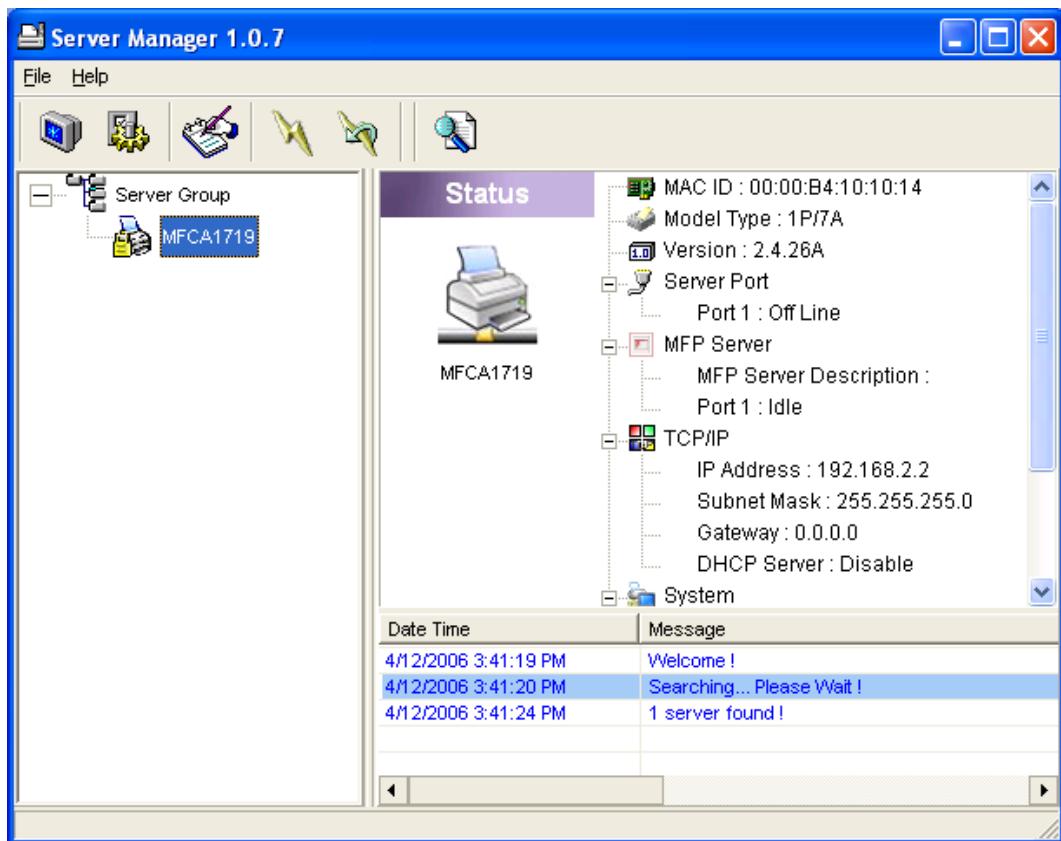
7.2 Search for All Available MFP Server



Every time when you run the “Server Manager” configuration utility, click the “Search” icon  on the tool bar. The configuration utility will delay for several seconds because the utility is using system’s available network protocols to search for all MFP Servers on the network. All available MFP Servers will be listed under “Server Group” on the left side of the window.

You must select the MFP Server you would like to configure from the list. The system will, at the same time, display the selected MFP Server’s status on the right side of the window.

7.3 Status of MFP Server

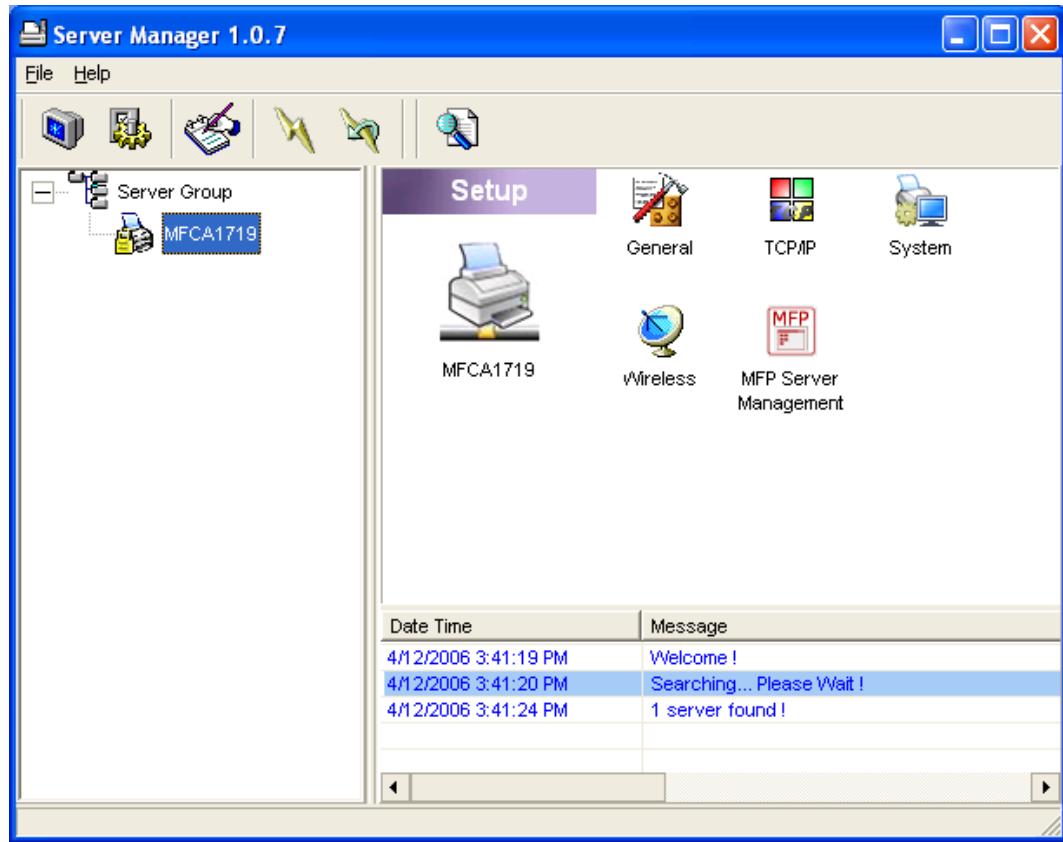


Click “Status” icon  on the tool bar, the status of the currently selected MFP Server will be showed on the right side of the window. The information of the MFP Server displayed are including MAC ID, Model Type, Firmware Version, status of each server port, IP address, subnet mask, default gateway and supported printing protocols...etc.

You can refresh the MFP Server’s status by pressing the “Refresh” button .

You can restart the MFP Server by pressing the “Reboot” button .

7.4 Setup the MFP Server

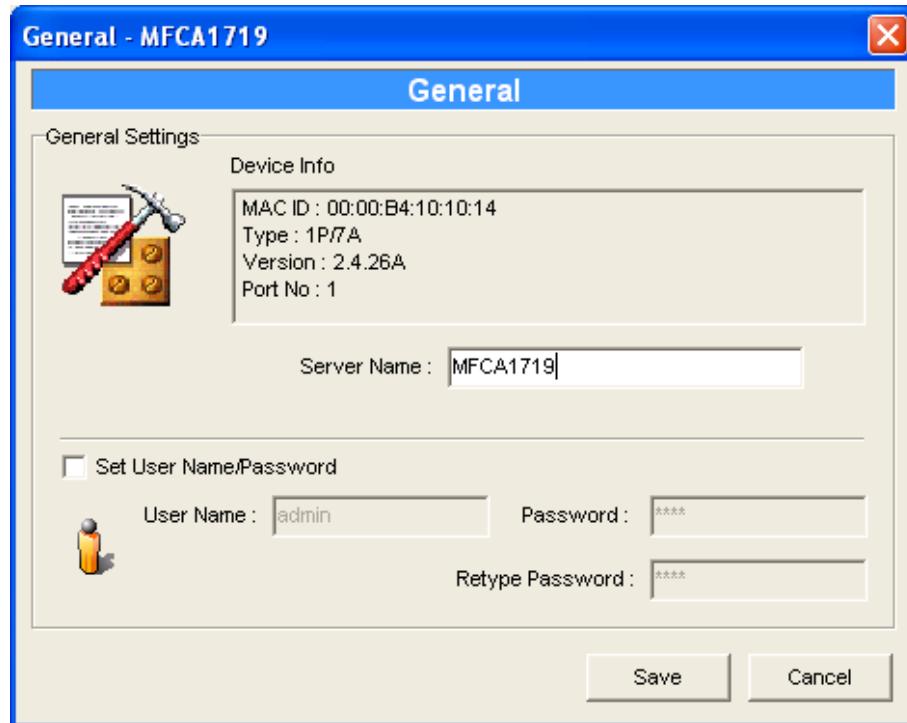


Click "Setup" icon  on the tool bar, the setup items of the current selected MFP Server will be showed on the right side of the window.

Double click one of the icons to set up the selected MFP Server. A screen will pop up to verify "User Name" and "Password" of the MFP Server. The default values are: **User Name: admin, Password: 1234**.

Tip: When you have finished the settings, please click  to restart the MFP Server to let the settings take effect.

7.5 General Configuration

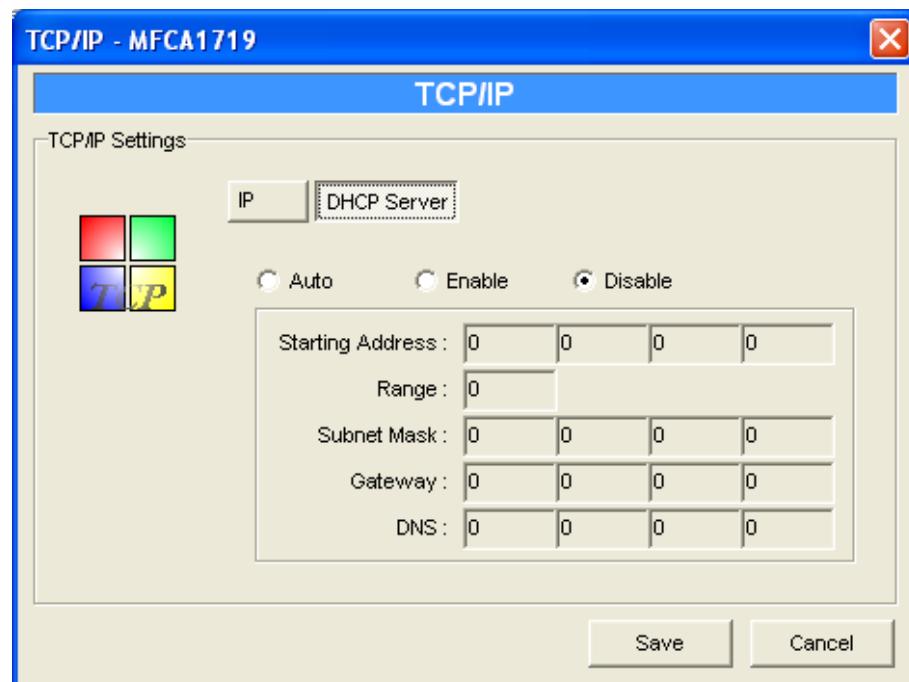
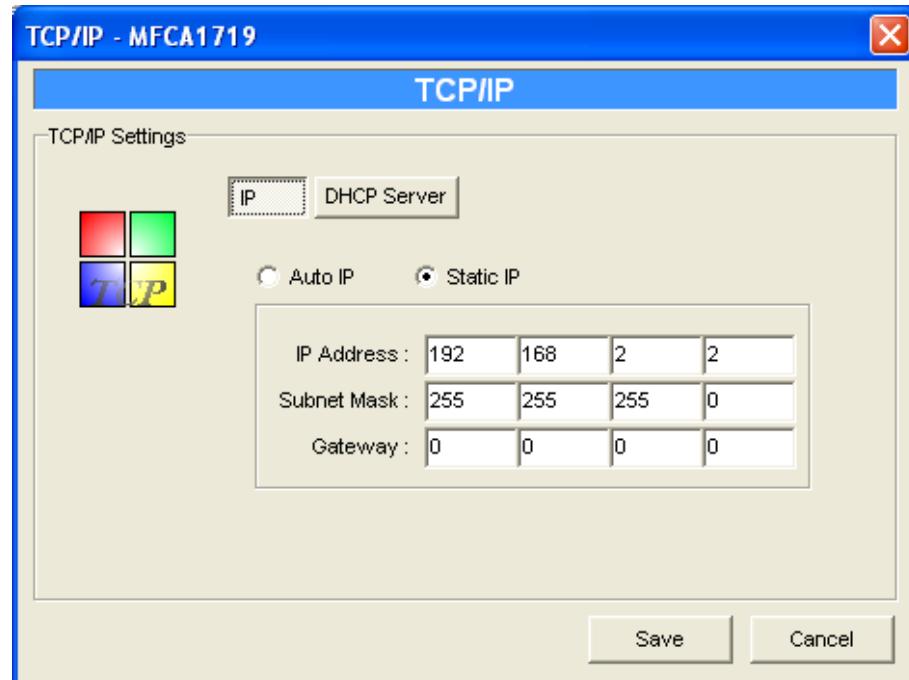


Double Click “General” icon and the General configuration window will pop-up. You can see basic MFP Server information in this page. You also can configure the “Server Name”, “User Name” and “Password” here.

Server Name, the name of the MFP Server. You can use this name to identify the MFP Server when you are searching for the MFP Server by the “Server Manger” utility.

User Name / Password is used to authenticate the administrator to login the MFP Server for configuring it from the “Server Manger” utility or the Web Management tool.

7.6 TCP/IP Configuration



Double Click “TCP/IP” icon and the TCP/IP configuration window will pop-up. You can configure the MFP Server to automatically get IP from DHCP server or manually specify static IP. The MFP Server also has a built-in DHCP server. You can enable this DHCP server and let it manages IP for you.

IP Address Assignment:

Click the “IP” button to enter the IP setting page. If you need the MFP Server to automatically get an IP from DHCP server, select “Auto IP”. You also can select “Static IP” to manually assign “IP Address”, “Subnet Mask” and “Gateway” for the MFP Server. By default, “Static IP” is enabled and the default settings are as follows.

IP Address: 192.168.2.2

Subnet Mask: 255.255.255.0

Auto IP – The IP Address information of the MFP Server obtained from DHCP Server will be displayed in the address field. If no DHCP Server is present, you have to assign the information manually.

Static IP – Manually assign the IP address information in the same network with your computer to the MFP Server.

DHCP Server:

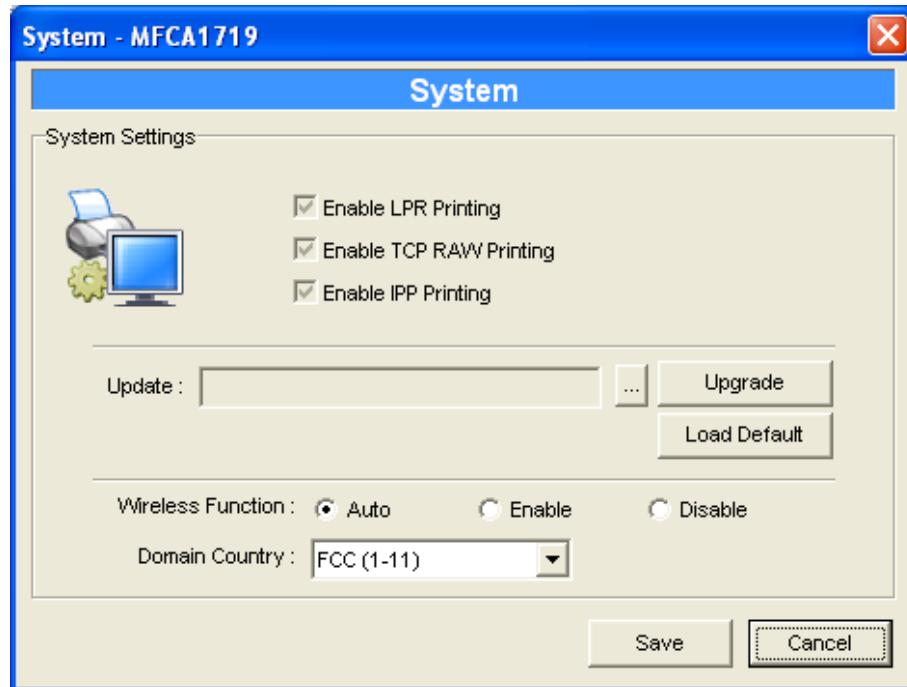
Click the “DHCP Server” button to enter into the DHCP server’s setting page. By the default, the DHCP server is disabled.

Auto – If “Auto” is selected, the MFP Server will detect DHCP server within the network automatically and once the DHCP server doesn’t exist, the MFP Server will turn on his own DHCP server and assign IP Address to client. Please fill in the “Starting Address”, “Range”, “Subnet Mask”, “Gateway” and “DNS”; then the MFP Server will assign a unique IP within the range for each DHCP client.

Enable – If the DHCP is enabled, you have to assign a range of IP addresses. Fill in the “Starting Address”, “Range”, “Subnet Mask”, “Gateway” and “DNS”; then the MFP Server will assign a unique IP within the range for each DHCP client.

Disable – The DHCP Server is disabled. You have to build up a DHCP Server in the network or set the IP Address for each client manually.

7.7 System Configuration



Double Click “System” icon and the System configuration window will pop-up. In the System configuration page, you can see all available printing protocols and upgrade the new firmware for this MFP Server.

Upgrade Firmware: You can use this “Upgrade Firmware” tool to update the newest firmware of the MFP Server. Click “...” button and select the correct firmware in your PC. After selecting the firmware file, click the “Upgrade” button to finish the firmware update process.

Tip: Before you upgrade the firmware, please make sure that the IP Address settings of the MFP Server are in the same network as your computer.

Load Default: If you want to reset the MFP Server to default factory settings, please click “Load Default”.

Wireless Function: You can select “Auto”, “Enable” or “Disable” to manually configure the wireless function.

Auto – “Auto” is the default setting of the MFP Server. At this mode, the MFP Server will automatically decide to enable or disable the wireless function.

When the MFP Server starts up, it will auto-detect if the LAN port is connected to an active network by an Ethernet cable. If this is the case, the MFP Server will run in Ethernet mode. If the MFP Server is not connected to an active network by Ethernet cable, the MFP Server will run in wireless LAN mode.

Users can plug the Ethernet cable to the MFP Server at the first, after configuring the MFP Server features and wireless settings; they can unplug the Ethernet cable to enable the wireless connection. It makes the configuration much easier without creating the wireless connection in advance.

Note: After you have set the wireless function, please remove the Ethernet cable and then re-plug the power jack of the MFP Server to activate the wireless connection.

Enable – Enable wireless function only, the MFP Server’s wireless LAN will be always enabled and Ethernet will be always disabled.

Disable – Disable the wireless function, the MFP Server’s wireless LAN will be always disabled and Ethernet will be always enabled.

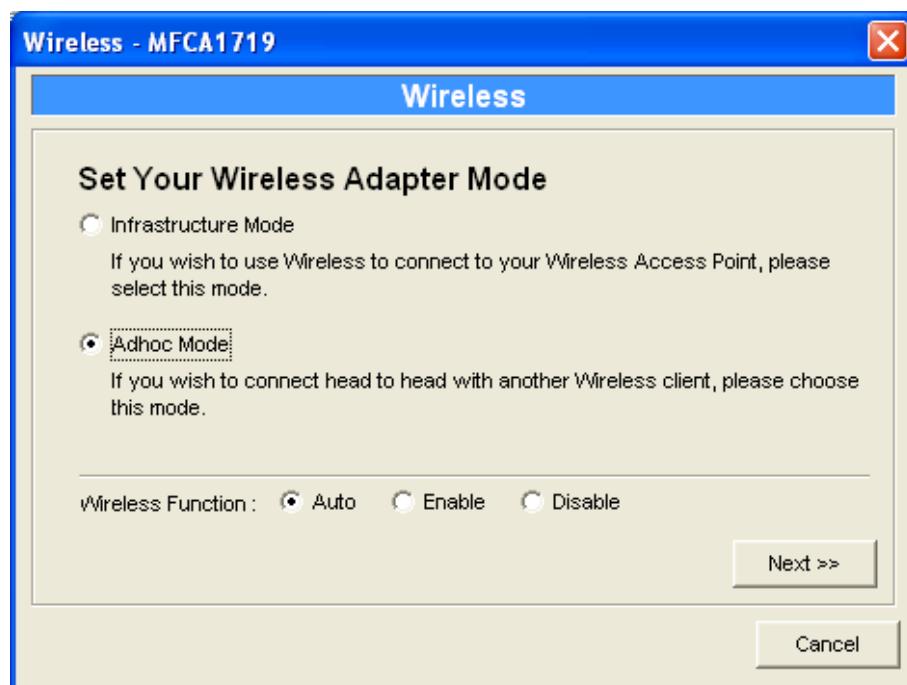
Domain Country: The wireless channels are different from country to country. Generally, the channels are from 1 to 11 in USA and from 1 to 13 in Europe. The operating channel will be set to the MFP Server before importing. If you are in different country, please make sure that you have set the available channels according to your location.

7.8 Wireless Configuration

If you want to use the MFP Server through wireless LAN, please set up the MFP Server through Ethernet first and make sure your wireless LAN setting is correct. After setting the wireless LAN, unplug the Ethernet cable and restart the MFP Server, then you can start to use the MFP Server through wireless LAN. If the wireless configuration does not work, please plug the Ethernet cable again, restart the MFP Server and configure the MFP Server through Ethernet until the wireless LAN settings are correct.

The default settings of the MFP Server wireless function are as follows.

- **Mode: Ad Hoc**
- **SSID: Default**
- **Channel: 11**



Double Click “Wireless” icon and the wireless configuration window will pop-up. If you use access point to build up wireless network, you have to select “Infrastructure Mode”. If you do not have any access point and want to use peer-to-peer connection to build up wireless network, you have to select “Ad-Hoc Mode”.

For Wireless Function, you can select “Auto”, Enable” or “Disable” to manually configure the wireless function.

Auto – “Auto” is the default setting of the MFP Server. At this mode, the MFP Server will automatically decide to enable or disable the wireless function.

When the MFP Server starts up, it will auto-detect if the LAN port is connected to an active network by an Ethernet cable. If this is the case, the MFP Server will run in Ethernet mode. If the MFP Server is not connected to an active network by Ethernet cable, the MFP Server will run in wireless LAN mode.

Users can plug the Ethernet cable to the MFP Server at the first, after configuring the MFP Server features and wireless settings; they can unplug the Ethernet cable to enable the wireless connection. It makes the configuration much easier without creating the wireless connection in advance.

Note: After you have set the wireless function, please remove the Ethernet cable and then re-plug the power jack of the MFP Server to activate the wireless connection.

Enable – Enable wireless function only, the MFP Server’s wireless LAN will be always enabled and Ethernet will be always disabled.

Disable – Disable the wireless function, the MFP Server’s wireless LAN will be always disabled and Ethernet will be always enabled.

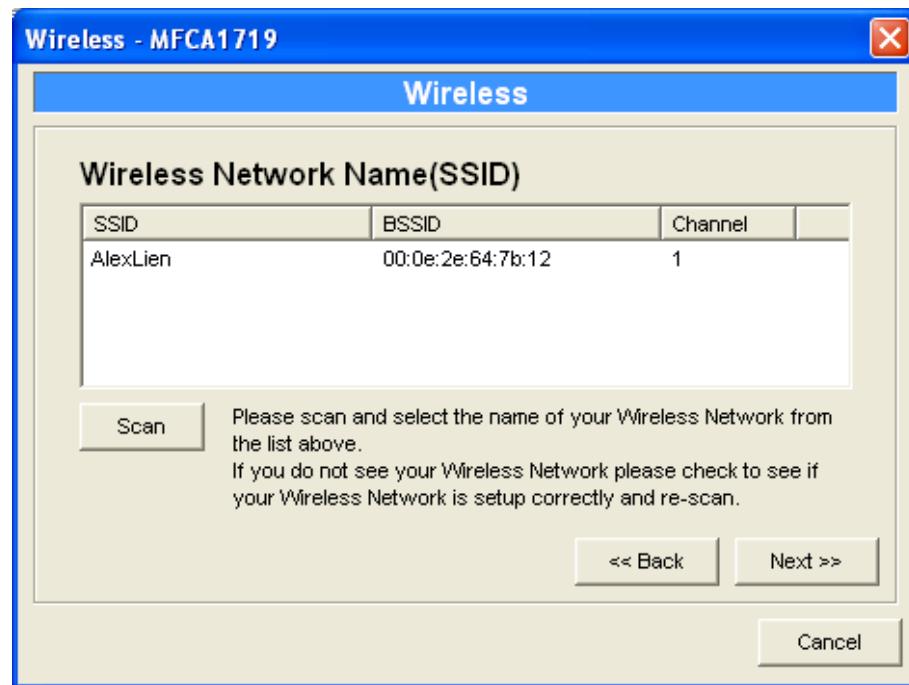
After selecting the operation modes of the wireless function, click “Next” to go to further detailed configuration.

Infrastructure Mode:



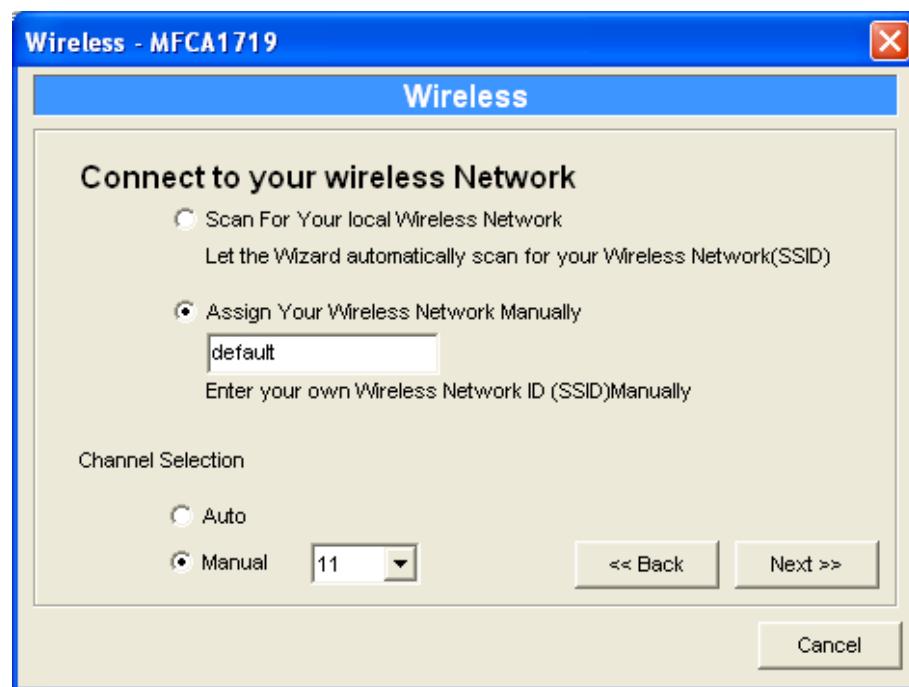
In the Infrastructure mode, you have to let the MFP Server associate with an access point. You let the MFP Server scan for an available access point automatically or manually assign the SSID of the access point you want to use.

If you select to let the MFP Server scan for an available access point, the following window will pop up.



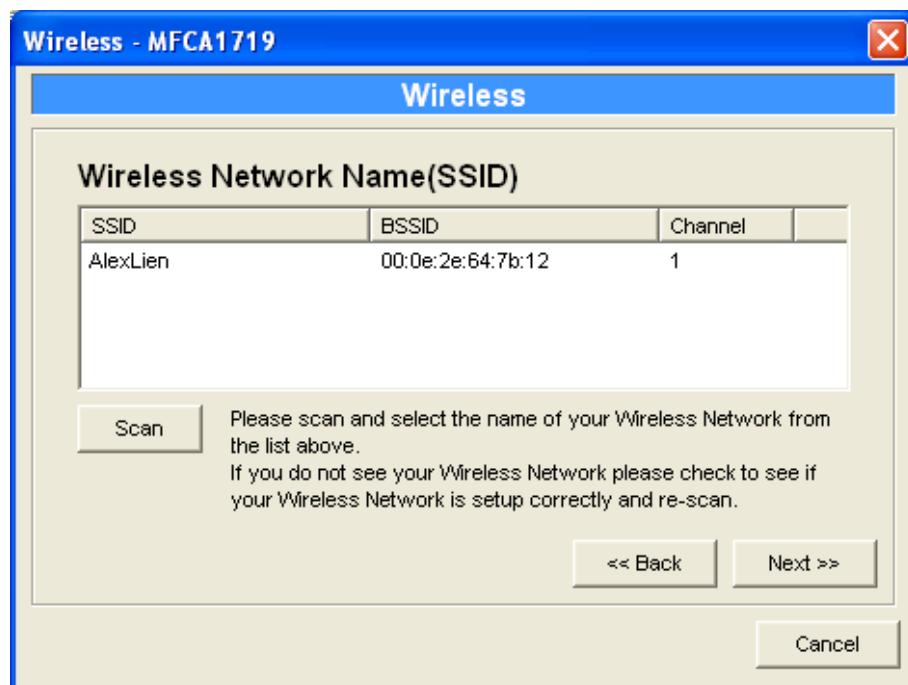
The table will list the available access points near the MFP Server. Select an access point in the list and click "Next". If you cannot find the access point that you want to use, click "Scan" to let the MFP Server scan again.

Ad Hoc Mode:



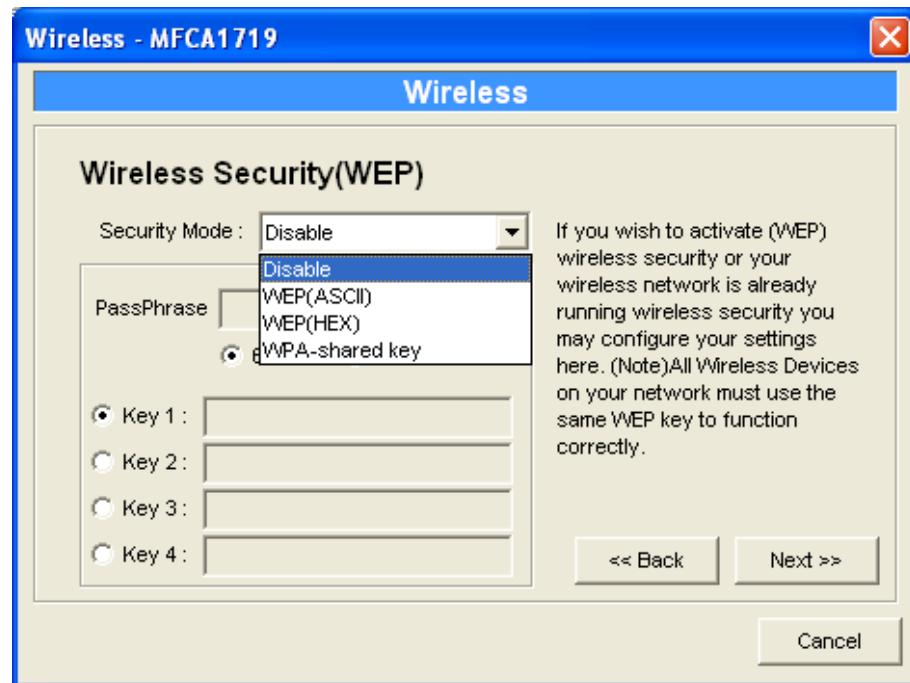
In the Ad-Hoc mode, you can let the MFP Server automatically associate with other wireless station or manually assign the SSID of your wireless network. You can let the MFP Server automatically select the channel that is the same with the wireless station that you want to connect or manually assign a channel.

If you select to let the MFP Server scan for an active wireless station, the following window will pop up.



The list is the scanned active wireless stations. Select a wireless station in the list and click "Next". If you cannot find the wireless station that you want the MFP Server to communicate with, click "Scan" to let the MFP Server scan again.

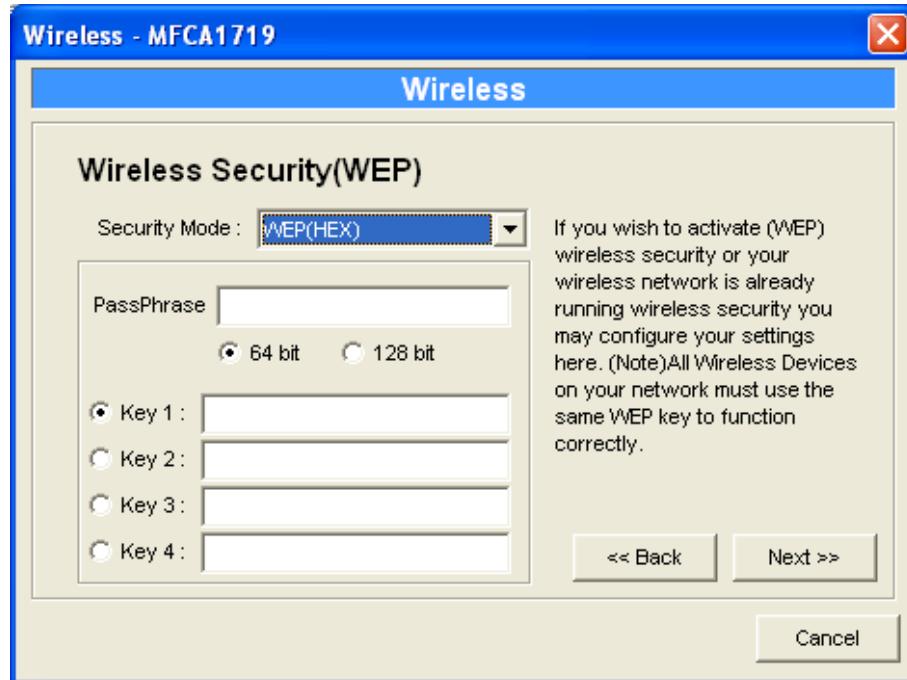
Both “Infrastructure” and “Ad-Hoc” mode have to go through the following procedure:



This MFP Server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select “WEP(ASCII)” or “WEP(HEX)”. If you want to use WPA-PSK, you have to select “WPA-shared key” or “WPA-None” specified for Ad Hoc mode. The

wireless security setting should be the same with other wireless devices in the same network.

WEP Security Mode:



You can select “64 bit” or “128 bit” length and “Hexadecimal” or “ASCII” format for the encryption key. Longer key length can provide stronger security but worth communication performance.

PassPhrase – A “PassPhrase” simplifies the WEP encryption process by automatically generating the WEP encryption keys for the MFP Server. This setting is only valid when the security mode is in “WEP(HEX)”.

Key 1 to Key 4 – Enter four key values by following the rules below and select one key as the default key.

If the key length is 64-bit, enter 10-digit Hex values or 5-digit ASCII values as the encryption keys. For example: “0123456aef” or “Guest”.

If the key length is 128-bit, enter 26-digit Hex values or 13-digit ASCII values as the encryption keys. For example: “01234567890123456789abcdef” or “administrator”.

WPA-shared key or WPA-None Security Mode:





“WPA-shared key” (for an infrastructure network) or “WPA-None” (enables WPA security for your ad hoc network) requires users to select the advanced encryption methods, i.e. TKIP or AES and enter a set of shared key.

TKIP – TKIP (Temporal Key Integrity Protocol) changes the temporal key every 10,000 packets. This insures much greater security than the standard WEP security.

AES – AES has been developed to ensure the highest degree of security and authenticity for digital information and it is the most advanced solution defined by IEEE 802.11i for the security in the wireless network.

Key – Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

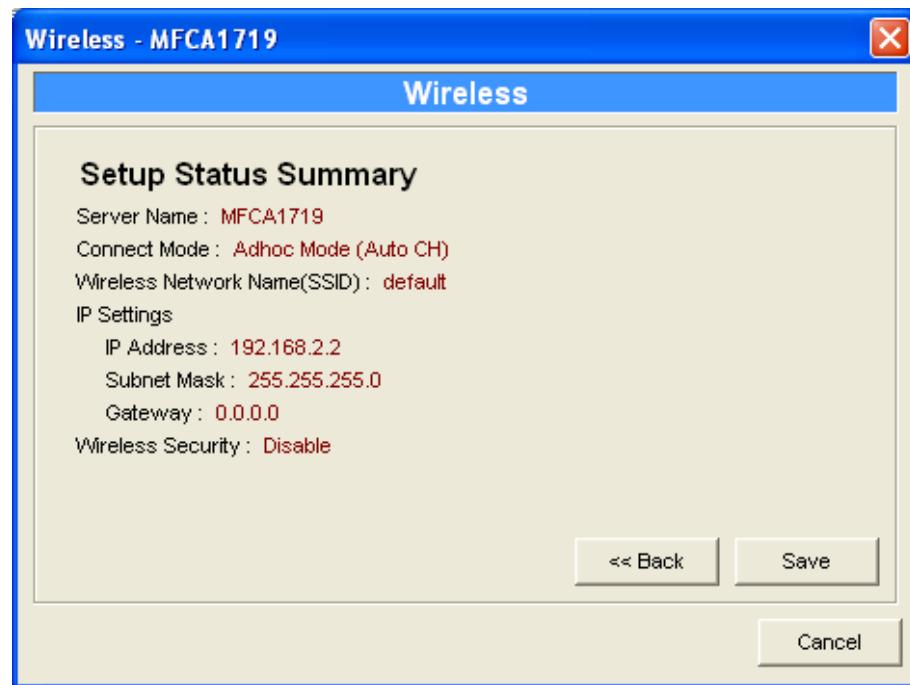
When you finish configuring the wireless security, click “Next” to go to next step.



You can select to let the MFP Server automatically obtain IP settings with DHCP client or manually assign the IP settings.

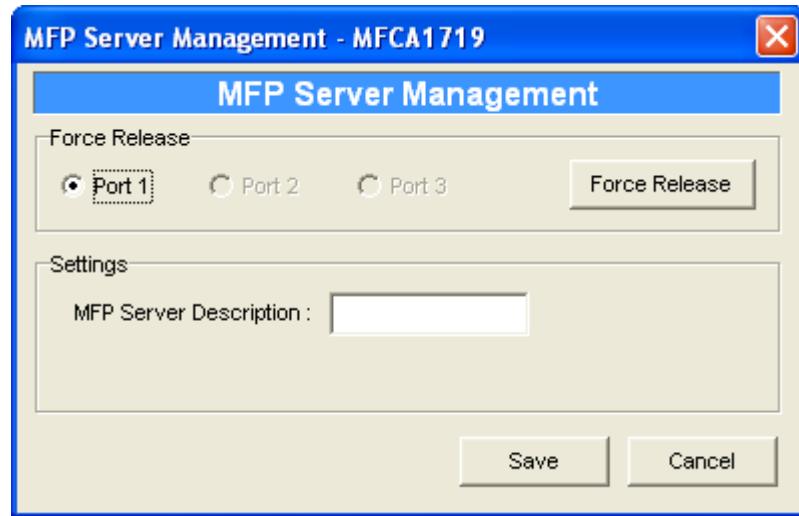
If you manually assign the IP settings, you have to enter IP address, subnet mask and default gateway address.

When you finish configuring the IP settings, click “Next” to confirm the IP Address configuration.



Click “Save” to save the wireless configuration.

7.9 MFP Server Management

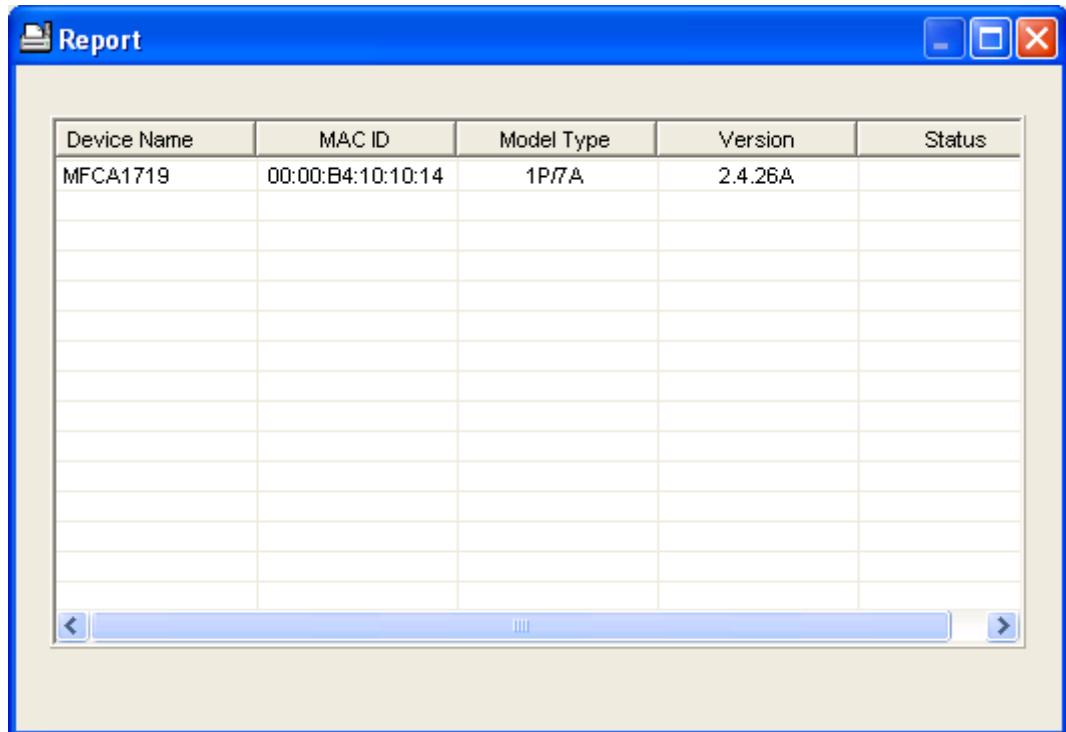


Double Click “MFP Server Management” icon and the MFP Server configuration window will pop-up. You are able to manage the MFP Server as below.

Force Release: Select the port number and then click “Force Release” will help to you disconnect the current connection between the user and the connected device. It is very useful when a user forgets to disconnect the MFP, administrator can force to disconnect the connection and let the MFP be free to use.

MFP Server Description: Enter 15 digits description of the MFP Server such as location or other information to help user to find the MFP Server easily.

7.10 Report



Click “Report” icon  on the tool bar, the Report window will pop up.
The report lists basic information of all available MFP Servers on the network.
The information includes Device Name, MAC ID, Model Type and Firmware Version of MFP Server.

8. Web Management

8.1 Introduction

MFP Server can be configured and managed on the Web. Through Local Area Network, or even Internet, administrator can easily configure and manage MFP Server's various main functions in browsers. Simply enter MFP Server's IP address into your browser's address field to manage a MFP Server by MFP Server's built-in Web Server.

The default IP Address, User Name and Password settings of the MFP Server are as follows.

IP Address: 192.168.2.2

User Name: Admin

Password: 1234

8.2 Login

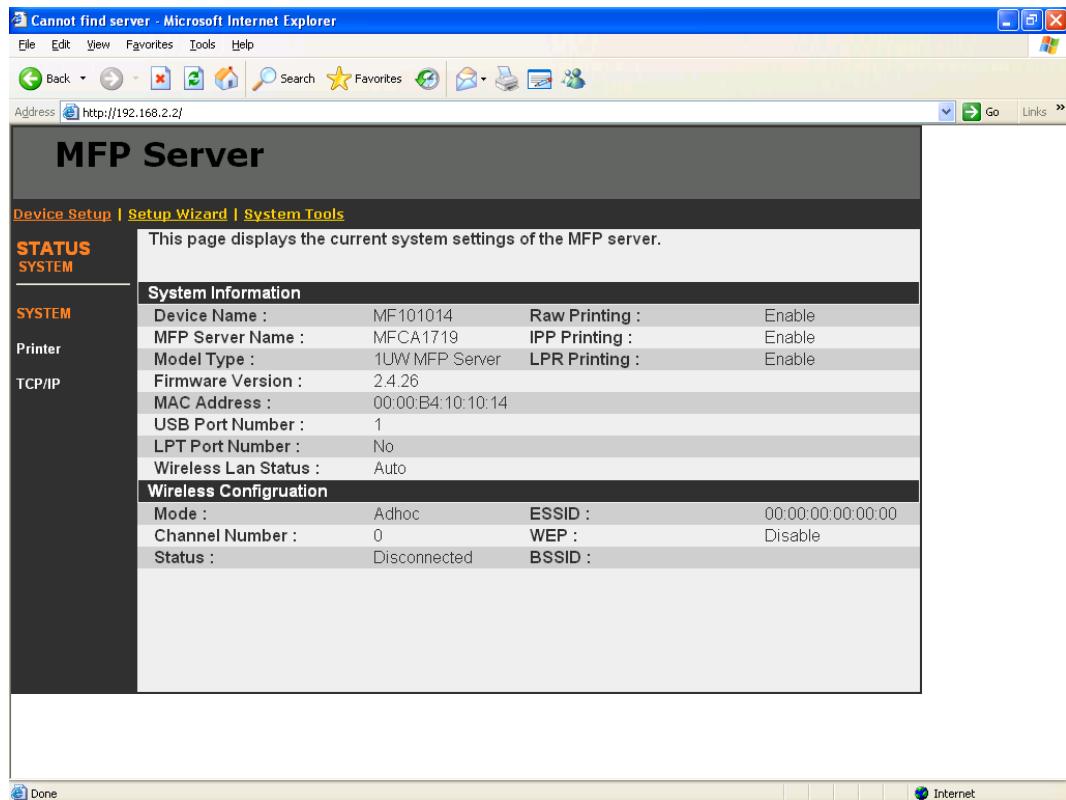
You may use any Web Browser to review the status or configure the settings of the MFP Server. After entering the IP address of the MFP Server, a login page display. You have to enter correct “User Name” and “Password” before going to the Web Management pages.

Note: Default User Name is “admin”, default password is “1234”.



8.3 Device Setup

8.3.1 System



The screenshot shows a Microsoft Internet Explorer window with the title 'Cannot find server - Microsoft Internet Explorer'. The address bar shows 'http://192.168.2.2/'. The main content is titled 'MFP Server' and displays the 'System' setup page. The left sidebar has 'STATUS' and 'SYSTEM' sections. The 'SYSTEM' section is expanded, showing 'SYSTEM', 'Printer', and 'TCP/IP' sub-sections. The 'TCP/IP' section is selected. The 'System Information' table contains the following data:

	Device Name :	MF101014	Raw Printing :	Enable
Printer	MFP Server Name :	MFCA1719	IPP Printing :	Enable
	Model Type :	1UW MFP Server	LPR Printing :	Enable
TCP/IP	Firmware Version :	2.4.26		
	MAC Address :	00:00:B4:10:10:14		
	USB Port Number :	1		
	LPT Port Number :	No		
	Wireless Lan Status :	Auto		

The 'Wireless Configuration' table contains the following data:

Mode :	Adhoc	ESSID :	00:00:00:00:00:00
Channel Number :	0	WEP :	Disable
Status :	Disconnected	BSSID :	

System Information includes “Device Name”, “MFP Server Name”, “Model Type”, “Firmware Version”, “MAC Address”, “Wireless Configuration”, and the protocols enabled status, etc.

8.3.2 Printer

The screenshot shows a Microsoft Internet Explorer window with the title 'MFP Server - Microsoft Internet Explorer'. The address bar shows 'http://192.168.2.2/'. The main content area is titled 'MFP Server' and contains a table of printer information. The table has one row for 'Printer 1' with columns for Manufacturer, Model Number, Printing Language Supported, and Current Status. The status is listed as 'Off_line'. The left sidebar has sections for 'STATUS', 'SYSTEM', 'SYSTEM', 'Printer', and 'TCP/IP'. The 'Printer' section is currently selected.

Printer 1	
Manufacturer :	
Model Number :	
Printing Language Supported :	
Current Status :	Off_line

This page lists information and the status of MFP or printer connected to the MFP Server port. The status of the MFP or printer includes “Connected”, “Ready”, “Off Line” or “Paper Out”.

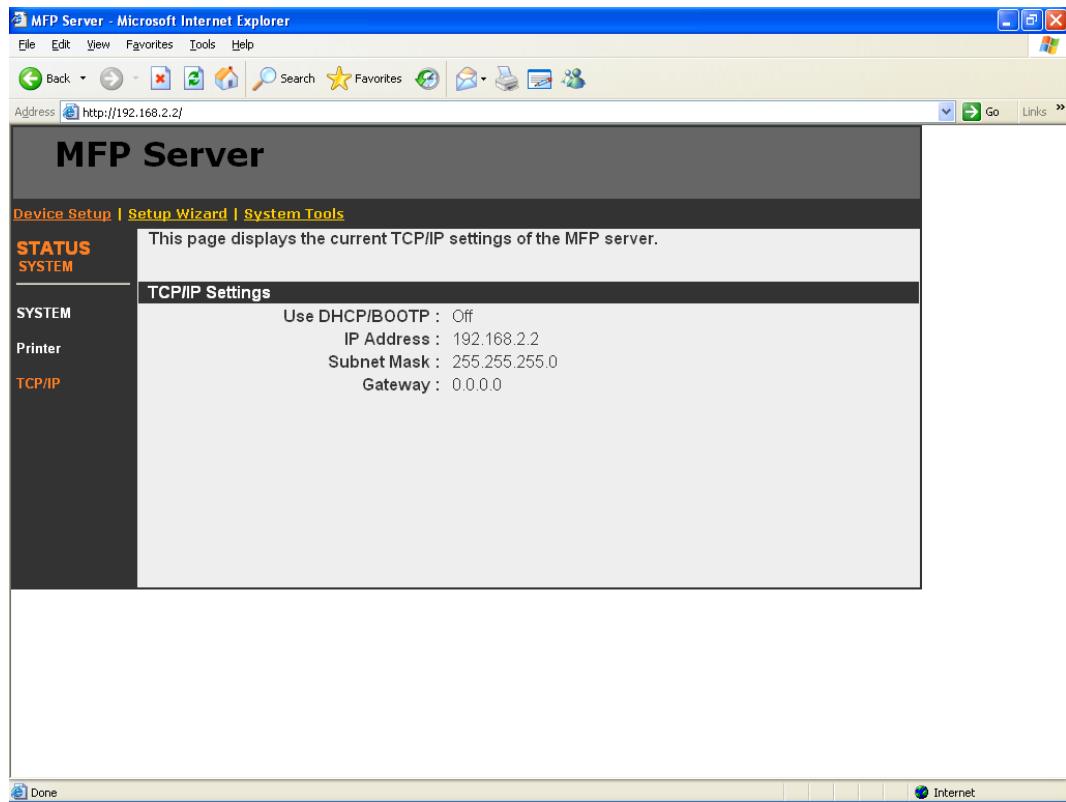
Connected: a user clicks “Connect” button in the “MFP Manager” utility, and the connection between the user’s computer and the MFP is built.

Ready: the MFP or printer is not connected by a user and is ready to use.

Off Line: the MFP or printer is not connected by a user and is not connected to MFP Server through USB cable or it is turned off.

Paper Out: the MFP or printer not connected by a user and is paper out.

8.3.3 TCP/IP



The screenshot shows a Microsoft Internet Explorer window titled "MFP Server - Microsoft Internet Explorer". The address bar shows "http://192.168.2.2/". The main content area is titled "MFP Server" and contains a sub-section titled "TCP/IP Settings". The page displays the following TCP/IP settings:

Setting	Value
Use DHCP/BOOTP	Off
IP Address	192.168.2.2
Subnet Mask	255.255.255.0
Gateway	0.0.0.0

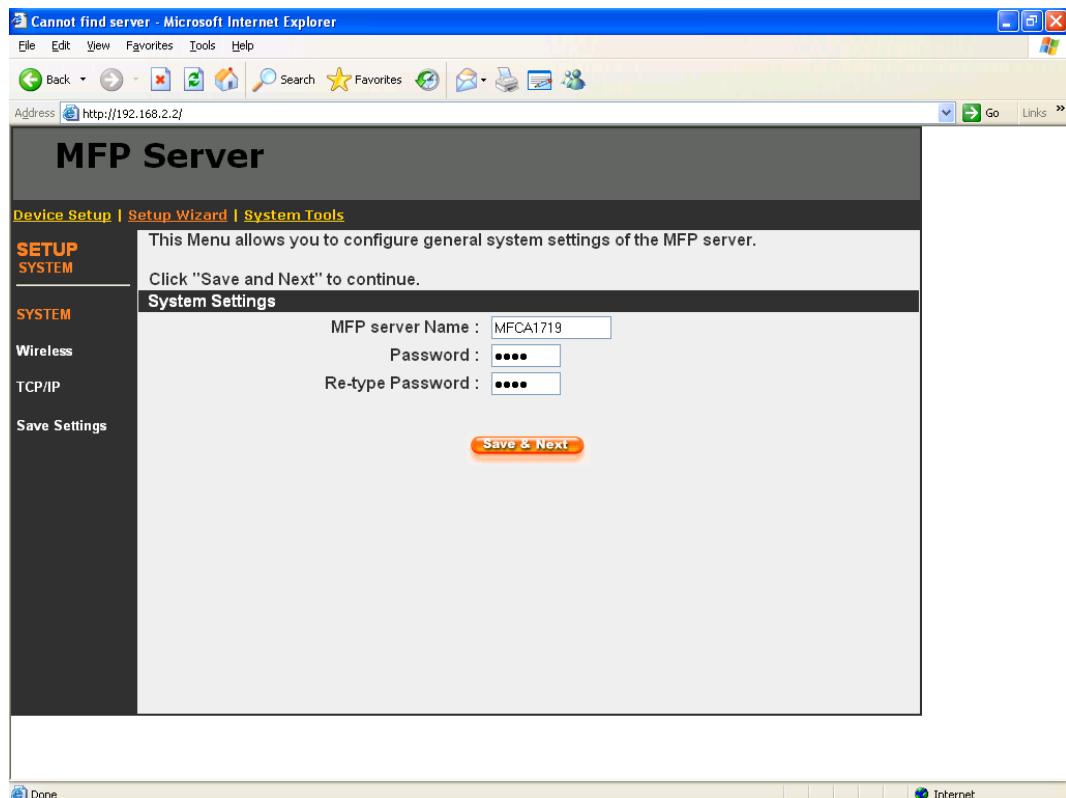
The left sidebar has a "SYSTEM" section with "STATUS", "Printer", and "TCP/IP" options. The "TCP/IP" option is highlighted in orange. The top menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The toolbar includes "Back", "Forward", "Stop", "Search", "Favorites", and "Links".

This page lists all TCP/IP settings of the MFP Server including “IP Address”, “Subnet Mask” and “Gateway”. It also can tell the DHCP server is “On” or “Off”.

8.4 Setup Wizard

Note: You can configure the MFP Server from the Setup Wizard. To let the changes take effect, you have to click “Save Settings” in the menu of the left side to reboot the MFP Server.

8.4.1 System



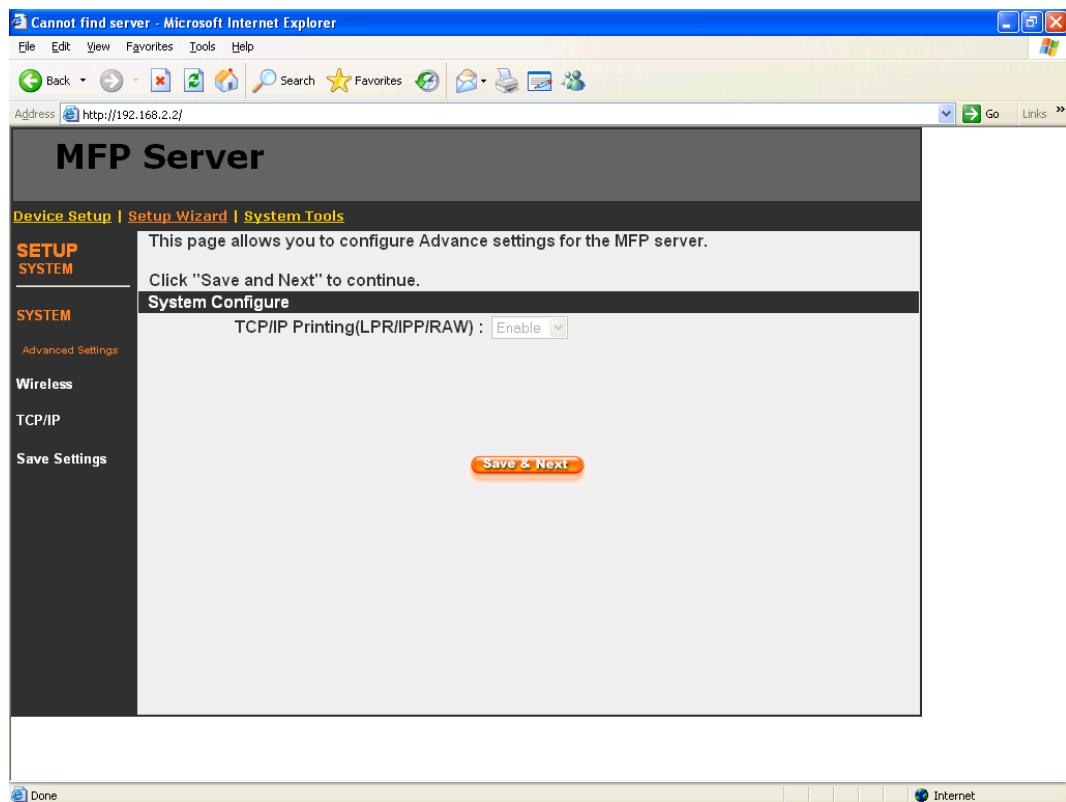
You can change the MFP Server name and password of the MFP Server from here.

MFP Server Name, the name of the MFP Server. You can use this name to identify the MFP Server when you are searching for the MFP Server by the “Server Manager” utilities.

Password, enter the password you want to change to the MFP Server. The password can be up to 7-digit alphanumeric format. The default password is “1234”.

Re-type Password, enter the same password for the MFP Server again.

8.4.1.1 Advanced Settings

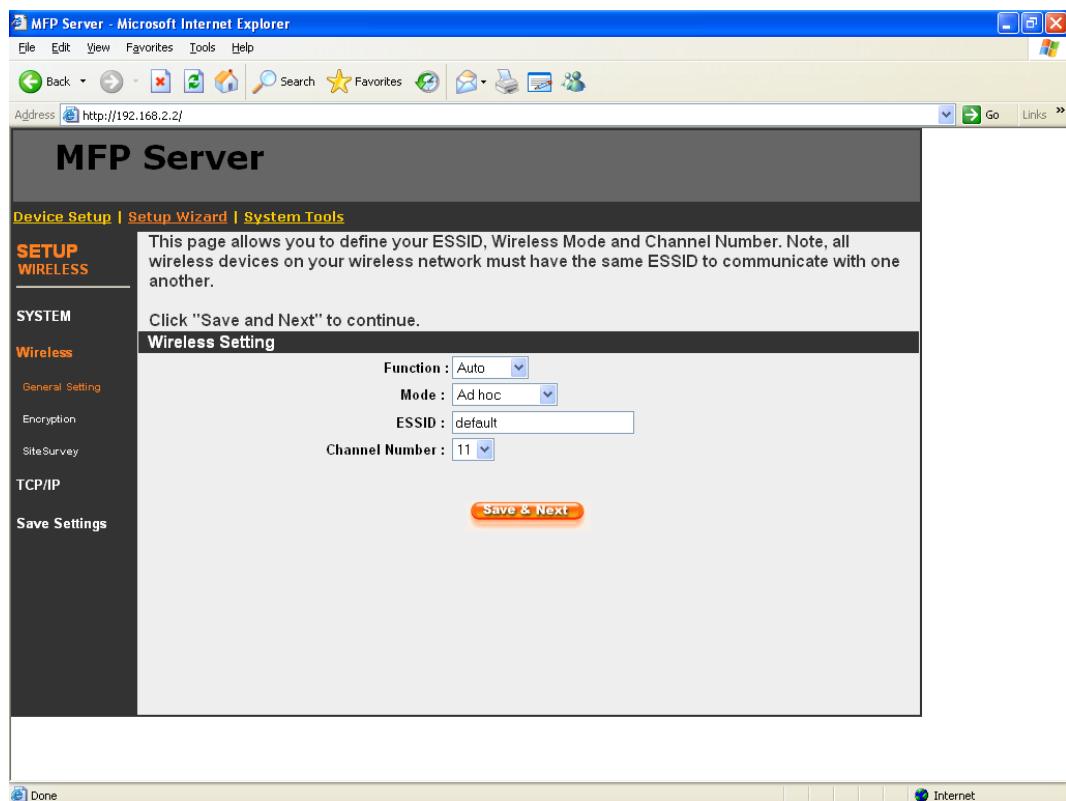


Some advanced feature of the MFP Server can be set here.

TCP/IP Printing (LPR/IPP/Raw): This MFP Server supports TCP/IP network protocol and LPR/IPP/Raw printing protocols. By default these protocols are enabled.

8.4.2 Wireless

If you want to use the MFP Server through wireless LAN, please set up the MFP Server through Ethernet first and make sure your wireless LAN setting is correct. After setting the wireless LAN, unplug the Ethernet cable and restart the MFP Server, then you can start to use the MFP Server through wireless LAN. If the wireless configuration does not work, please plug the Ethernet cable again, restart the MFP Server and configure the MFP Server through Ethernet until the wireless LAN settings are correct.



You can enable/disable the wireless function and set up the wireless parameters for the MFP Server from here. The parameters include “Function”, “Mode”, “ESSID” and “Channel Number”. You can manually set the wireless network that you want to connect in this page or use the “Site Survey” function to automatically search for an available wireless network and associate with it.

Function is for user to disable, enable or let the MFP Server auto select to connect to the wired or wireless network. If “Disable” is selected, the MFP Server can only connect to the network through wired Ethernet. If “Enable” is

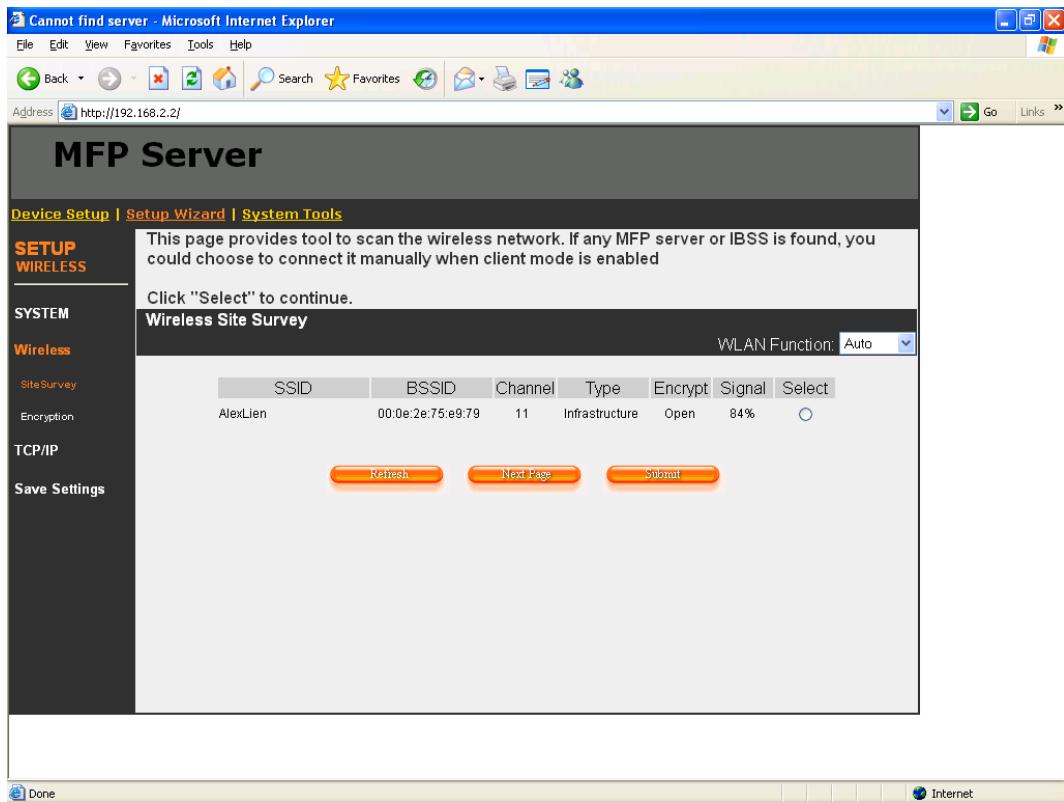
selected, the MFP Server can only connect to the network through Wireless LAN. If “Auto” is selected, the MFP Server can automatically decide to enable or disable the wireless function. The MFP Server only can work in either Ethernet or wireless LAN mode. It cannot work in both Ethernet and wireless LAN mode at the same time. When the MFP Server starts up, it will auto-detect if the LAN port is connected to an active network by an Ethernet cable. If the MFP Server is connected to an active network by Ethernet cable when starting up, the MFP Server will run in Ethernet mode. If the MFP Server is not connected to an active network by Ethernet cable when starting up, the MFP Server will run in wireless LAN mode. The MFP Server default is in “Auto” mode.

Mode is the operation mode of wireless station. You can choose either “Ad Hoc” or “Infrastructure” mode. If you do not have any access point and want to use peer-to-peer connection, you have to choose “Ad Hoc” mode. If you have an access point as the wireless LAN infrastructure, you have to choose “Infrastructure” mode.

ESSID is the unique name identified by in a wireless LAN. The ID prevents the unintentional merging of two co-located WLANs. Please make sure that the ESSID of all stations and access points in the same WLAN network are the same.

Channel Number is the channel number of your wireless LAN. Please make sure that the channel number of all stations and access points in the same WLAN network are the same.

8.4.2.1 Site Survey



The screenshot shows a Microsoft Internet Explorer window with the title bar 'Cannot find server - Microsoft Internet Explorer'. The address bar shows 'http://192.168.2.2/'. The main content area is titled 'MFP Server' and contains a 'Wireless Site Survey' section. On the left, a sidebar lists 'SETUP', 'WIRELESS' (selected), 'SYSTEM', 'Wireless' (selected), 'Site Survey' (disabled), 'Encryption' (disabled), 'TCP/IP' (disabled), and 'Save Settings'. The 'Wireless Site Survey' section has a sub-header 'Click "Select" to continue.' and a table with the following data:

SSID	BSSID	Channel	Type	Encrypt	Signal	Select
AlexLien	00:0e:2e:75:e9:79	11	Infrastructure	Open	84%	<input type="radio"/>

At the bottom of the table are three buttons: 'Refresh', 'Next Page', and 'Submit'.

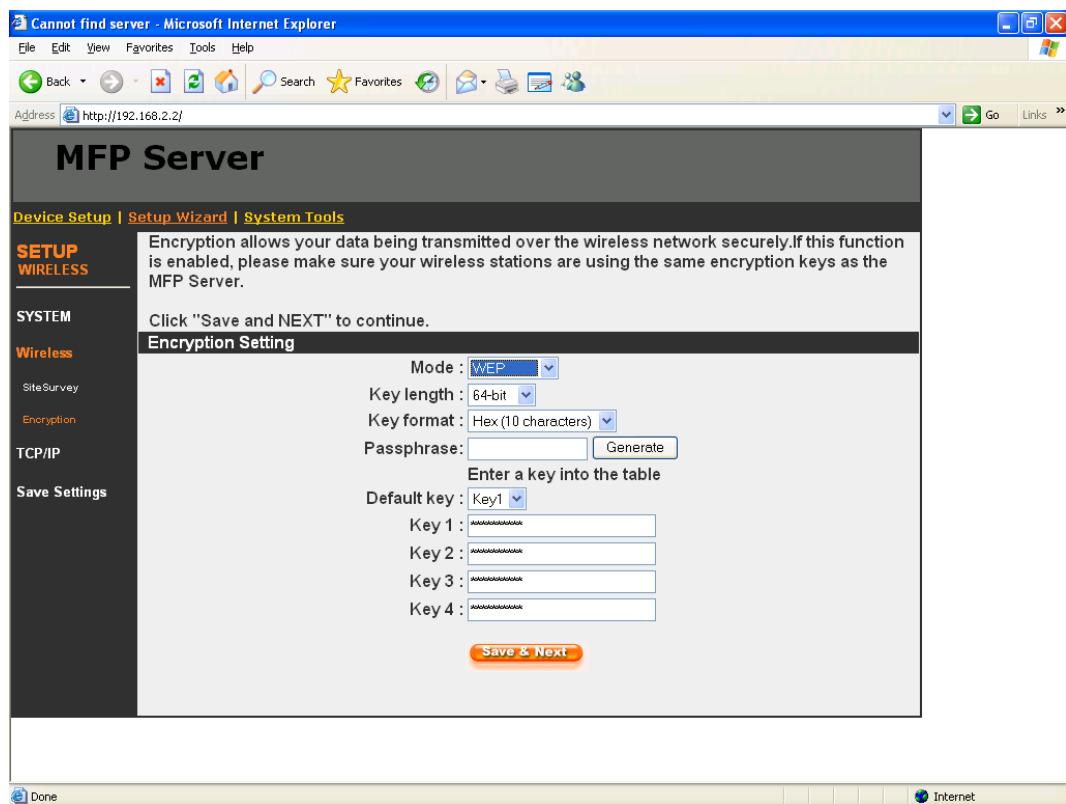
You can use this “Site Survey” function to search for available access points in your location. In the list is the information of all available access points or wireless stations, includes SSID, BSSID, Channel, Type, Encryption and Signal Strength. You can select one wireless device in the list for this MFP Server to associate with or you have to go back to Wireless page to manually setup the wireless parameters.

There is “WLAN Function” setting for you to setup Auto/Disable/Enable wireless function of the MFP Server here. Please refer to section 8.4.2 to know more about the setting.

8.4.2.2 Encryption

This MFP Server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select "WEP". If you want to use WPA-PSK, you have to select "WPA-PSK" (for an infrastructure network) or "WPA-None" (enables WPA security for an ad hoc network). The wireless security setting should be the same with other wireless devices in the same network.

WEP Security Mode:



Key Length – You can choose “64-bit” to use WEP with 64-bit key length encryption or choose “128-bit” to use WEP with 128-bit key length encryption. The longer key length can provide better security but worse transmission throughput.

Key Format – You may select to use ASCII Characters (alphanumeric format) or Hexadecimal digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.

PassPhrase – A “PassPhrase” simplifies the WEP encryption process by automatically generating the WEP encryption keys for the MFP Server.

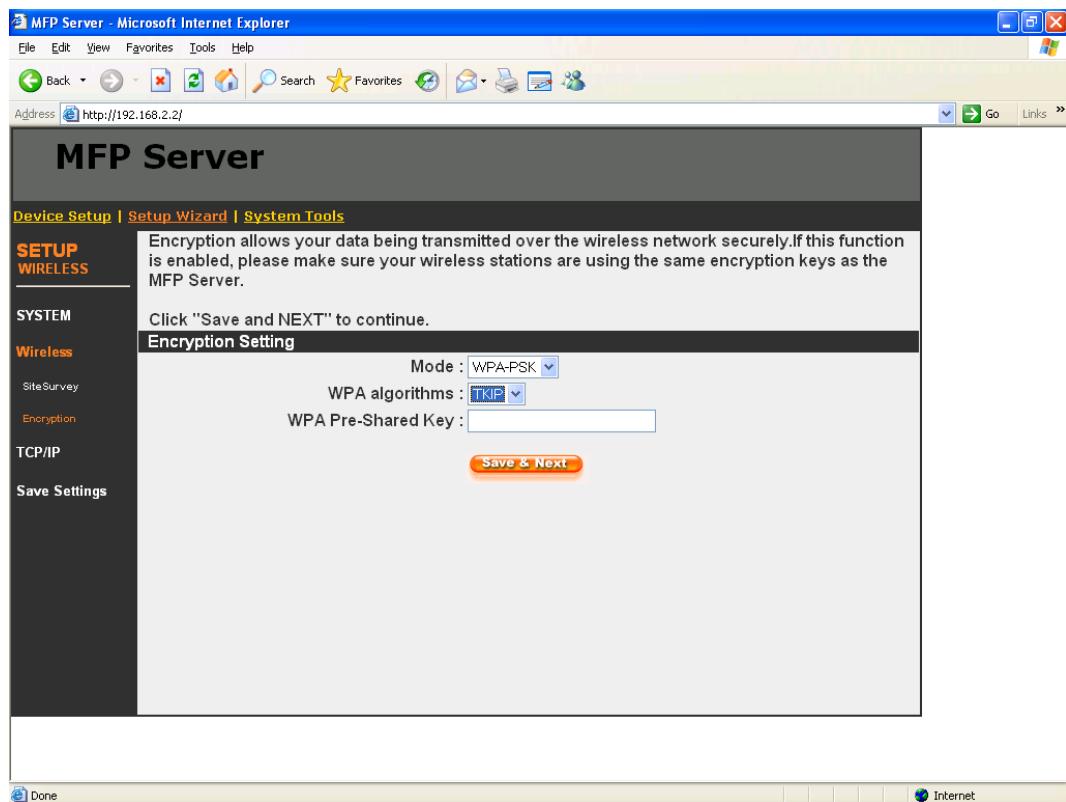
Default Key – Select one of the four keys to encrypt your data. Only the key you select it in the “Default key” will take effect.

Key 1 – Key 4 – The WEP keys are used to encrypt data transmitted within the wireless network. Fill the text box by following the rules below.

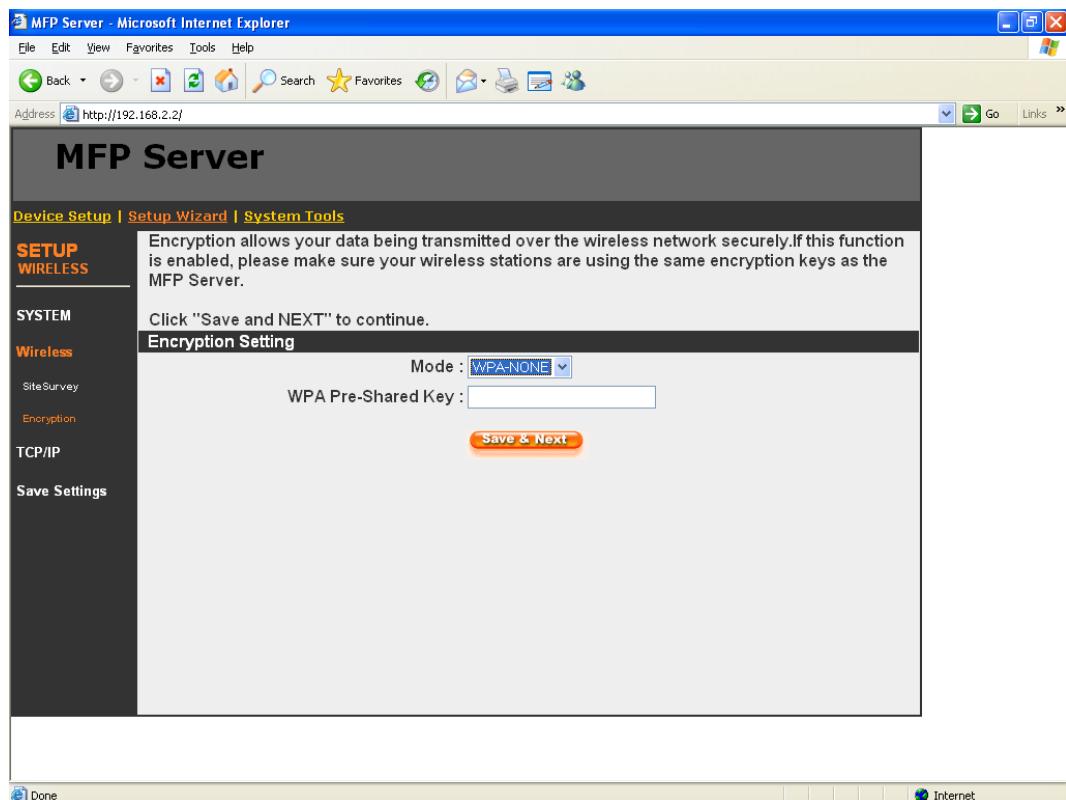
64-bit WEP: input 10-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys. For example: “0123456aef“ or “Guest“.

128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 10-digit ASCII characters as the encryption keys. For example: “01234567890123456789abcdef“ or “administrator“.

WPA-PSK or WPA-None Security Mode:



The screenshot shows the 'Encryption Setting' page of the MFP Server configuration interface. The 'Mode' dropdown is set to 'WPA-PSK'. The 'WPA algorithms' dropdown is set to 'TKIP'. The 'WPA Pre-Shared Key' field is empty. A 'Save & Next' button is visible at the bottom.



The screenshot shows the 'Encryption Setting' page of the MFP Server configuration interface. The 'Mode' dropdown is set to 'WPA-NONE'. The 'WPA Pre-Shared Key' field is empty. A 'Save & Next' button is visible at the bottom.

“WPA-shared key” (for an infrastructure network) or “WPA-None” (enables WPA security for your ad hoc network) requires users to select the advanced encryption methods, i.e. TKIP or AES and enter a set of shared key.

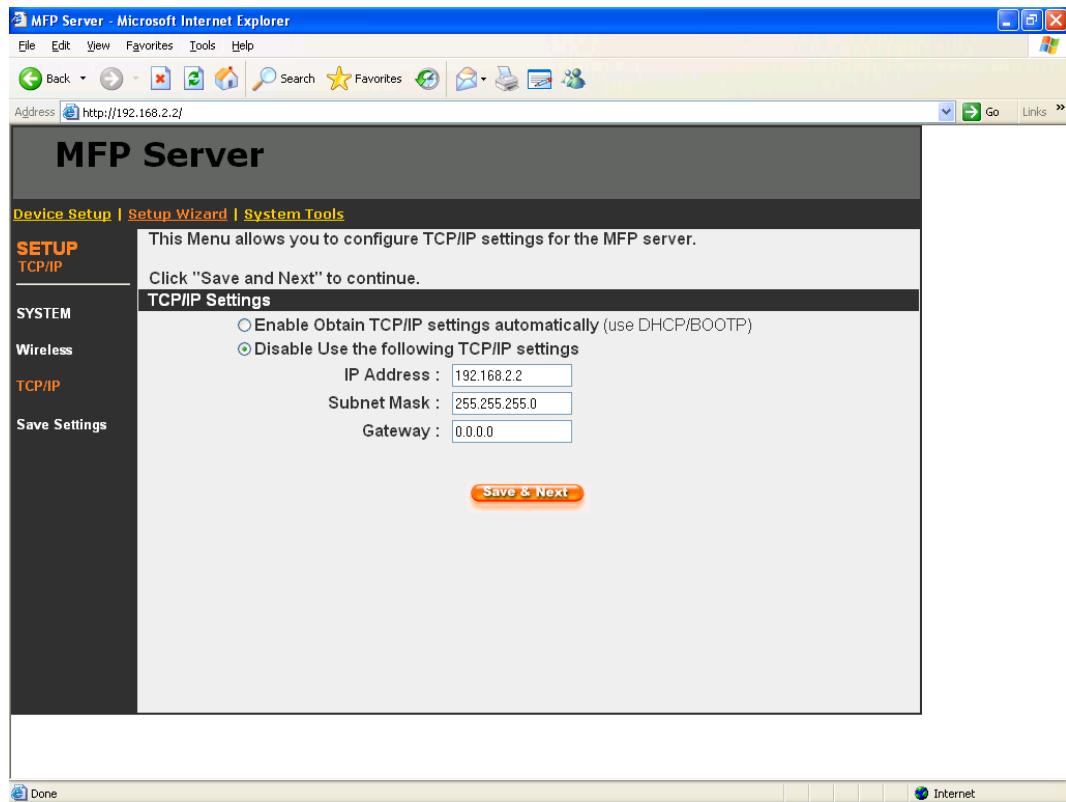
TKIP – TKIP (Temporal Key Integrity Protocol) changes the temporal key every 10,000 packets. This insures much greater security than the standard WEP security.

AES – AES has been developed to ensure the highest degree of security and authenticity for digital information and it is the most advanced solution defined by IEEE 802.11i for the security in the wireless network.

Key – Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

When you finish configuring the wireless security, click “Save & Next” to confirm the configuration.

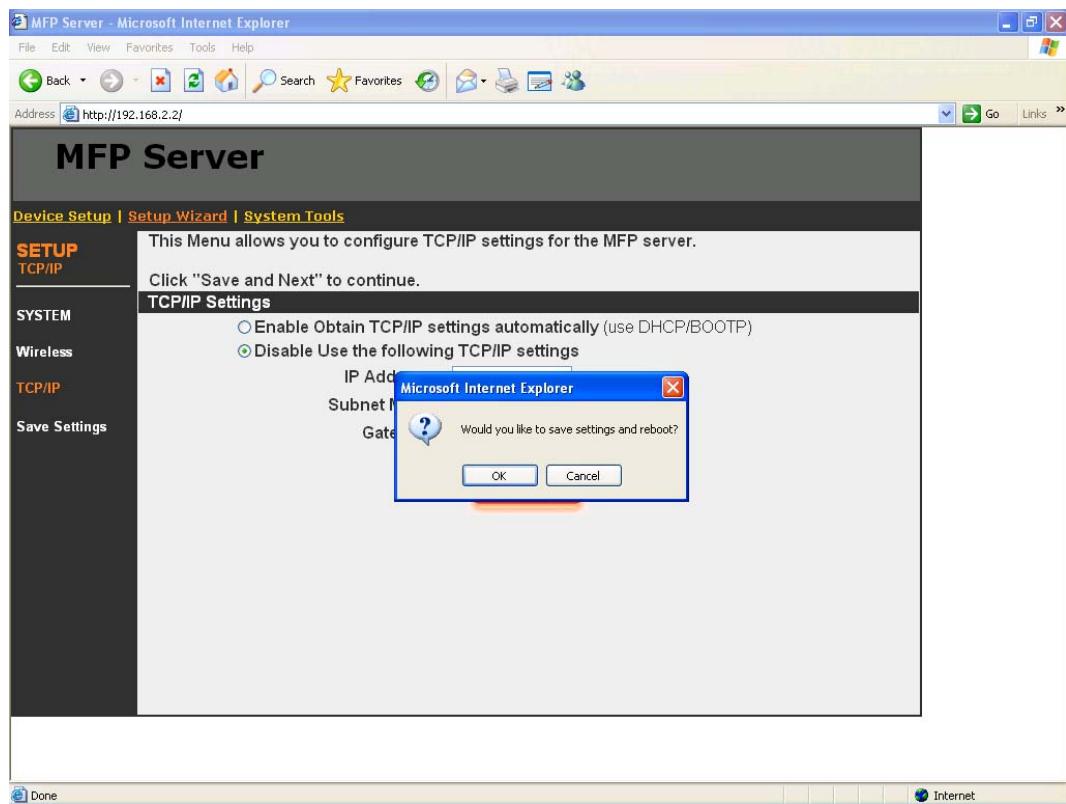
8.4.3 TCP/IP



You can configure the MFP Server to automatically get IP from DHCP server or manually specify static IP.

If you need the MFP Server to automatically get an IP from DHCP server, select “Enable Obtain TCP/IP Settings Automatically (Use DHCP/ BOOTP)”. You also can select “Disable Use the following TCP/IP Settings” to manually assign “IP Address”, “Subnet Mask” and “Gateway” for the MFP Server.

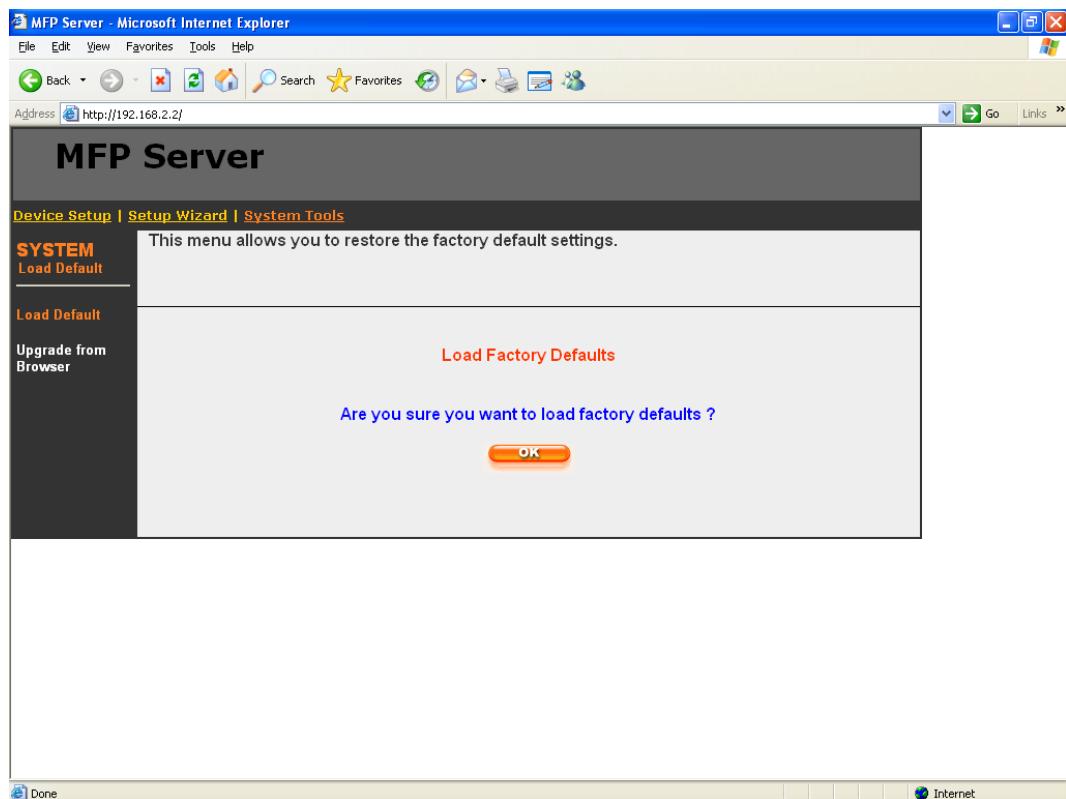
8.4.4 Save Settings



After configuring the MFP Server, you have to click the “Save Settings” to save the settings and restart the system.

8.5 System Tools

8.5.1 Load Default



You can use this page to restore the factory default settings. All of your previous setup will be cleared.

8.5.2 Upgrade Firmware from Browser



You can upgrade new firmware for this MFP Server in this page. Click “Browse” to select the new firmware in your storage and then click “OK”, the firmware will be updated in several minutes.

Be aware that if you have started upgrading firmware, you have to follow all the upgrading steps or the MFP Server can't turn back to normal configuration.

9. LPR Printing

LPR Printing (Line Printer Remote technology) allows users to connect to MFPs or printers via TCP/IP for printing sharing. The computer with Windows 98SE/Me/NT/2000/XP/2003 operating system can use the protocol to share printing in the network. MFP Server can support LPR printing by default.

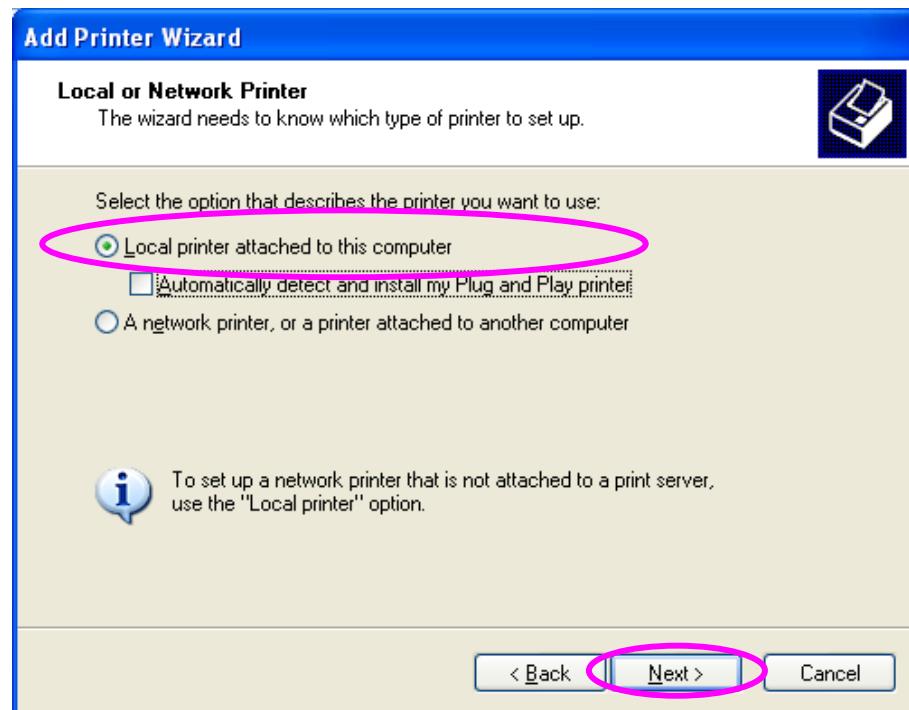
If you install the MFP Server in Windows 98SE/Me/NT, the MFP Server provides a tool “Network Port Setup” that help to add the LPR protocol to users’ computer easily. Please refer to Chapter 10.

To configure the LPR setting in Windows 2000/XP/2003, please follow the steps below.

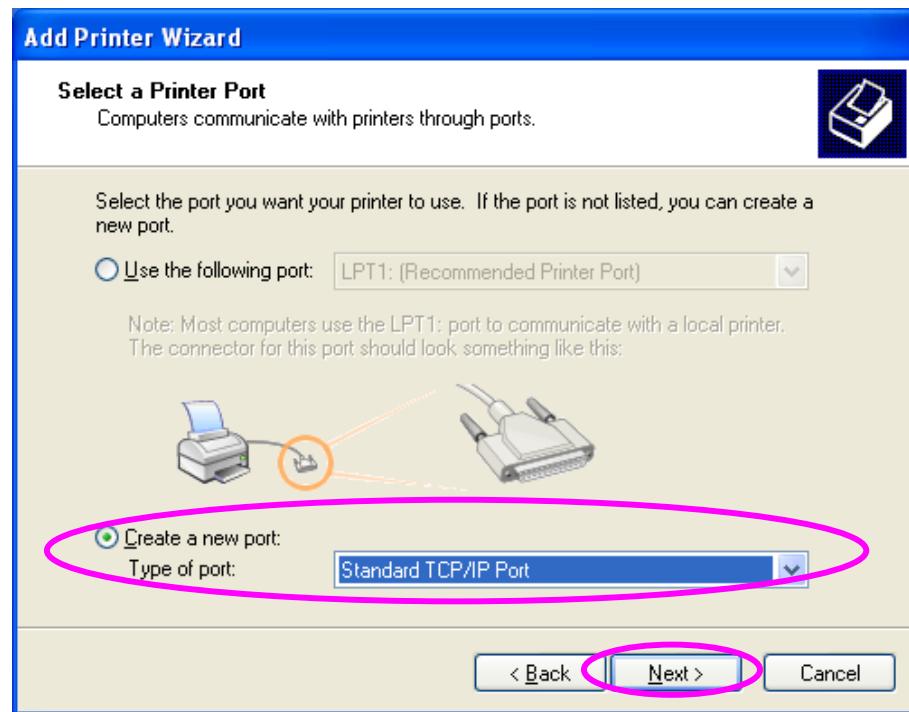
1. Click “Start”, choose “Settings” and select “Printers and Faxes”.
2. Click “Add a Printer”.
3. The “Add Printer Wizard” is displayed. Click “Next”.



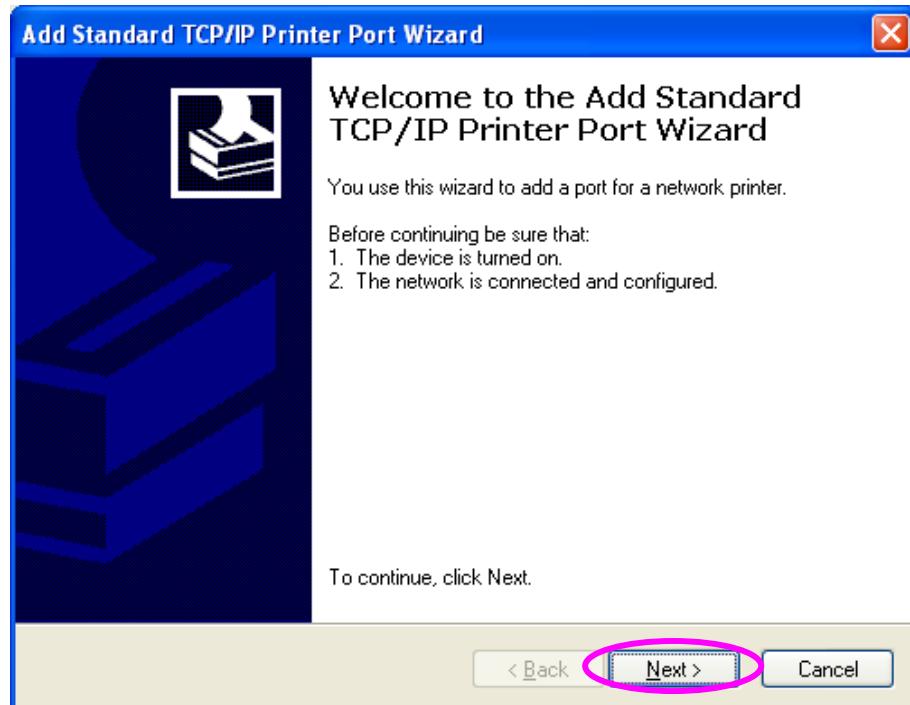
4. Select “Local Printer attached to this computer” and click “Next”.



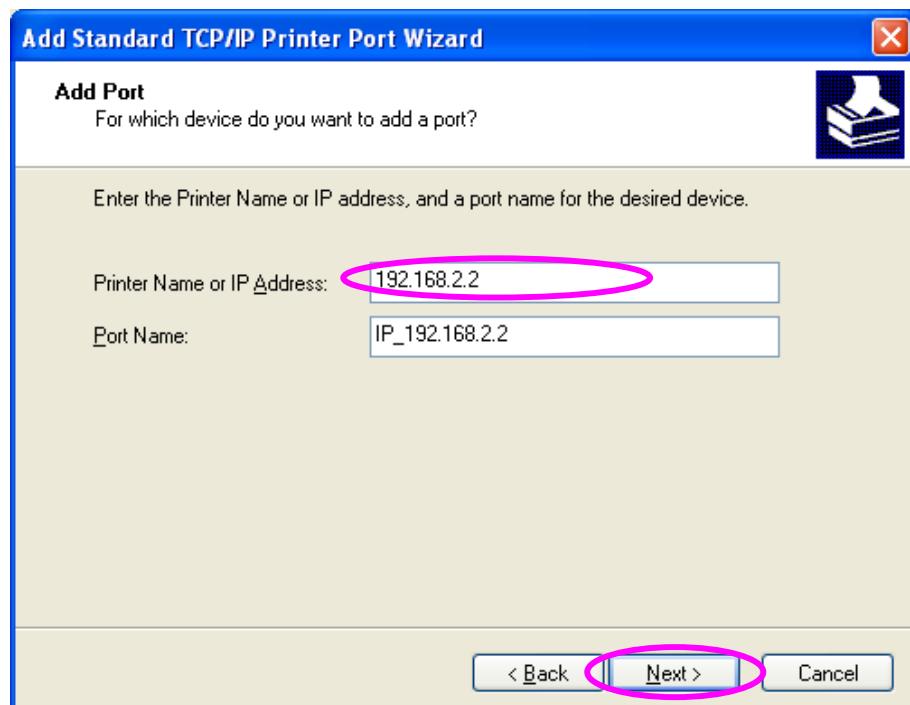
5. Choose “Create a new port” and “Standard TCP/IP Port”. Click “Next”.



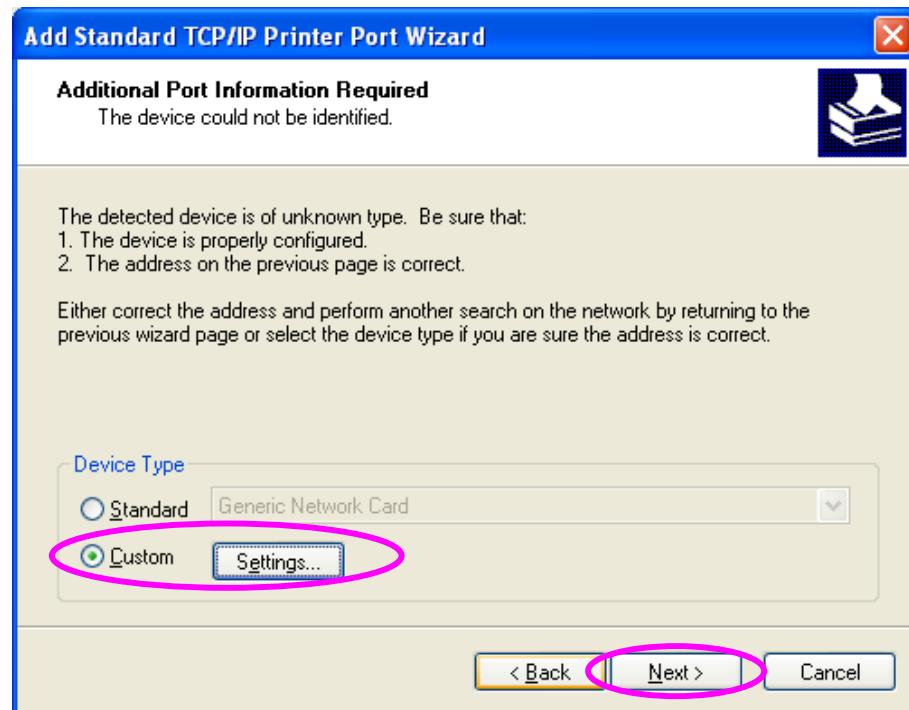
6. Please make sure that the MFP Server and the MFP or Printer have turned on and connected to the network correctly before you continue. Click "Next".



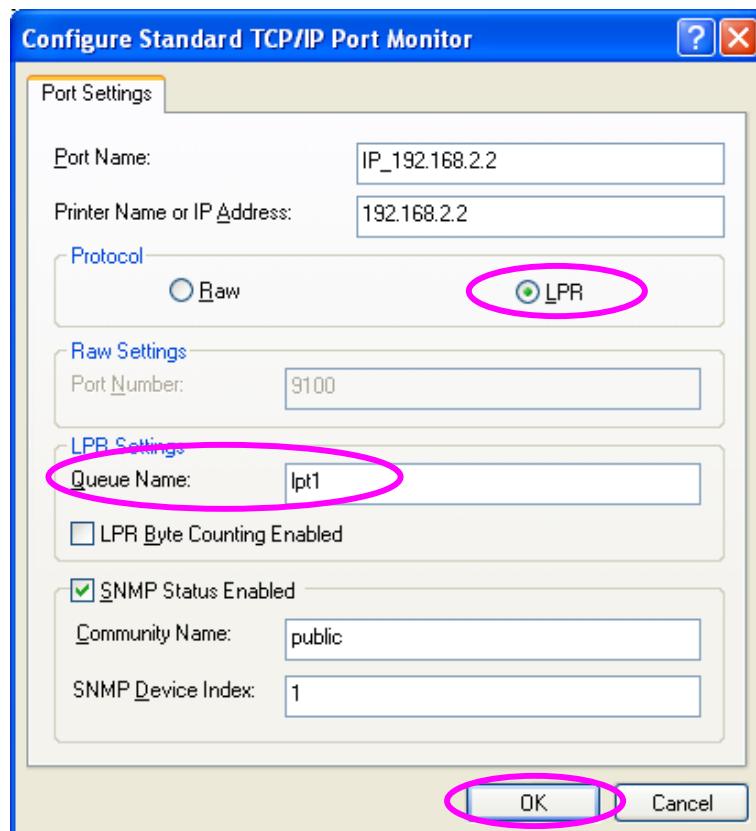
7. Enter the IP Address of the MFP Server in the "Printer Name or IP Address". Click "Next".



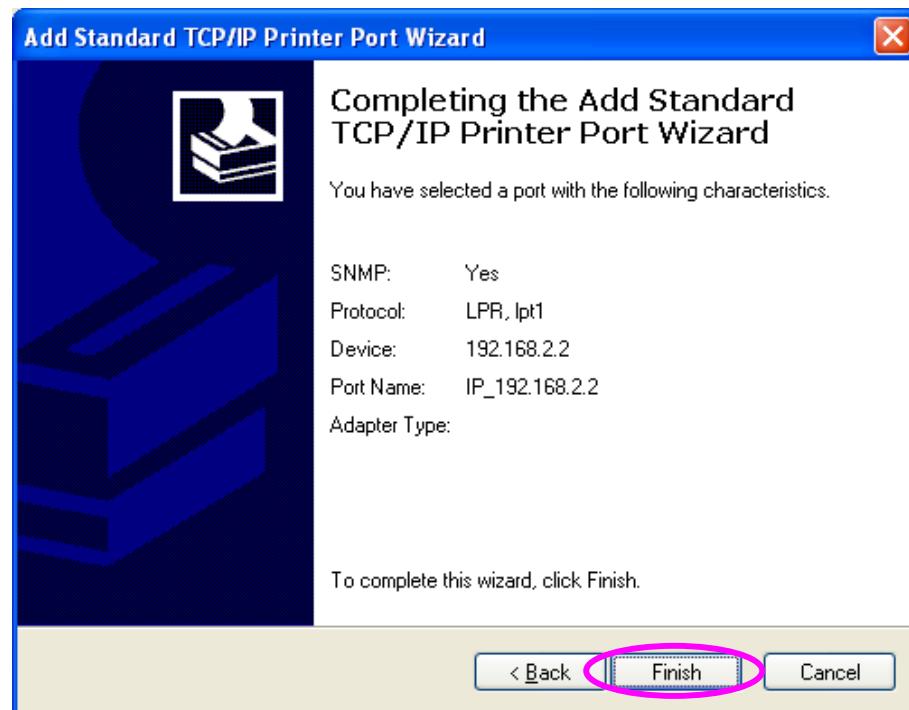
8. Select “Custom” and click “Settings”. When you have finished the settings at step 9, click “Next” to continue.



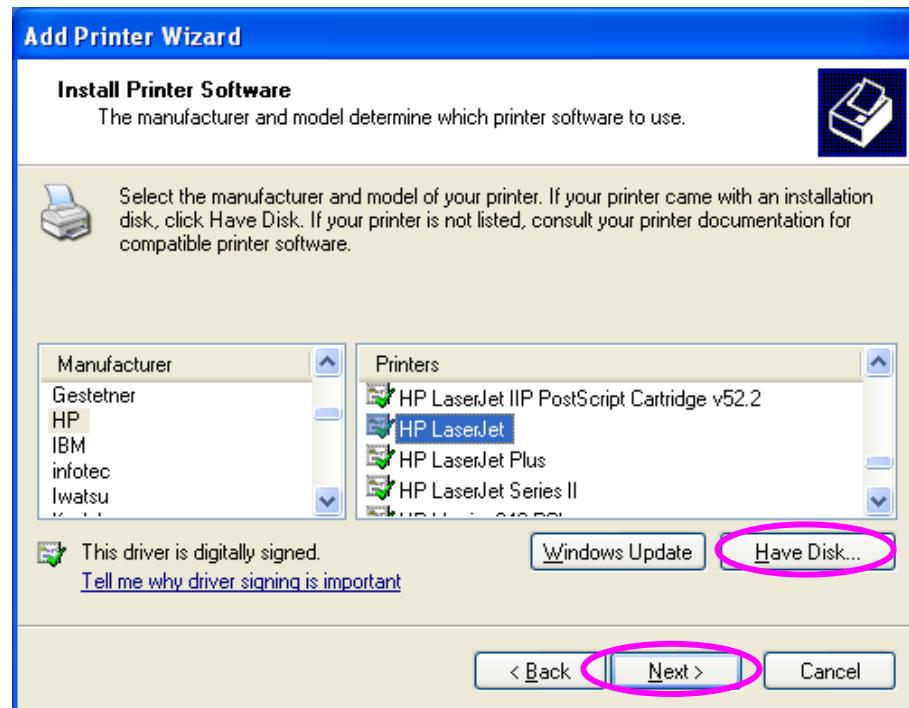
9. Select “LPR” and enter “lpt1” in the “Queue Name”, click “OK”. By default the queue name of the MFP Server is “lpt1”.



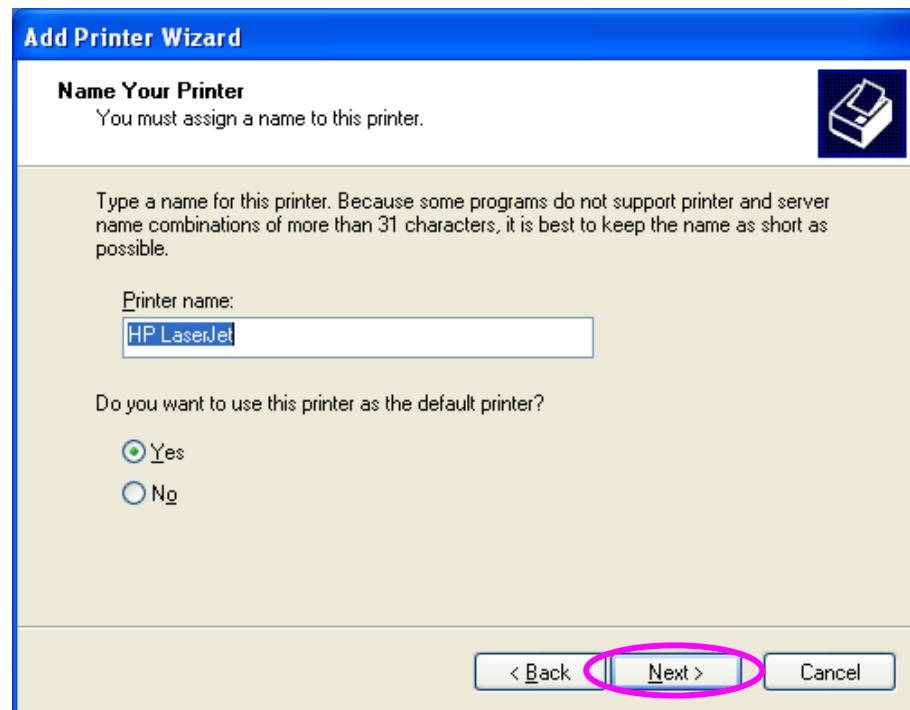
10. Click “Finish”.



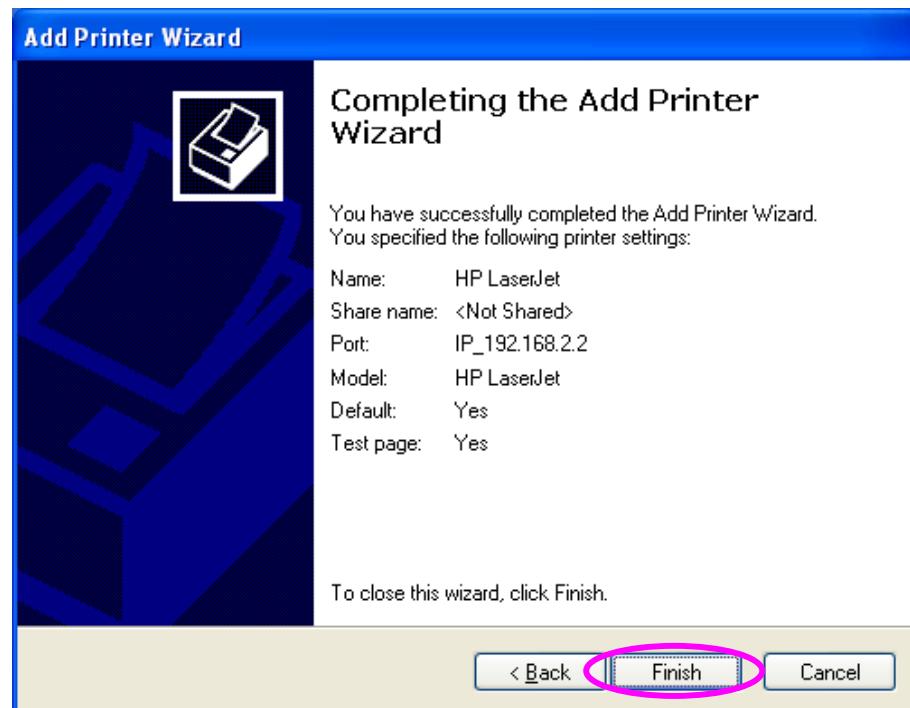
11. Select a suitable printer manufacturer and the printer model and click “Next”. If your printer is not in the list, click “Have Disk...” to install the driver of the printer. After installation, the printer model will be added to the list.



12. Choose to set the print whether as a default printer or not. Click “Next”.



13. You have added the network printer to the PC successfully. The information of the printer is displayed in the windows. Click “Finish”.



10.RAW Printing

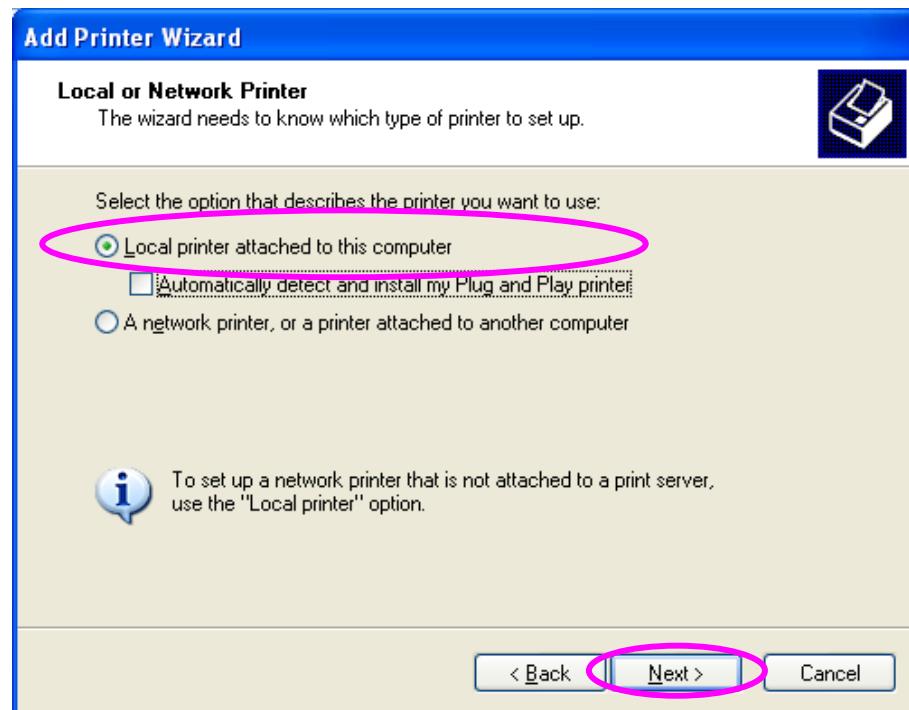
RAW Printing allows users to connect to MFPs or printers via TCP/IP for printing sharing. The computer with Windows 2000/XP/2003 operating system can use the protocol to share printing in the network. MFP Server can support RAW printing by default.

To configure the RAW setting in Windows 2000/XP/2003, please follow the steps below.

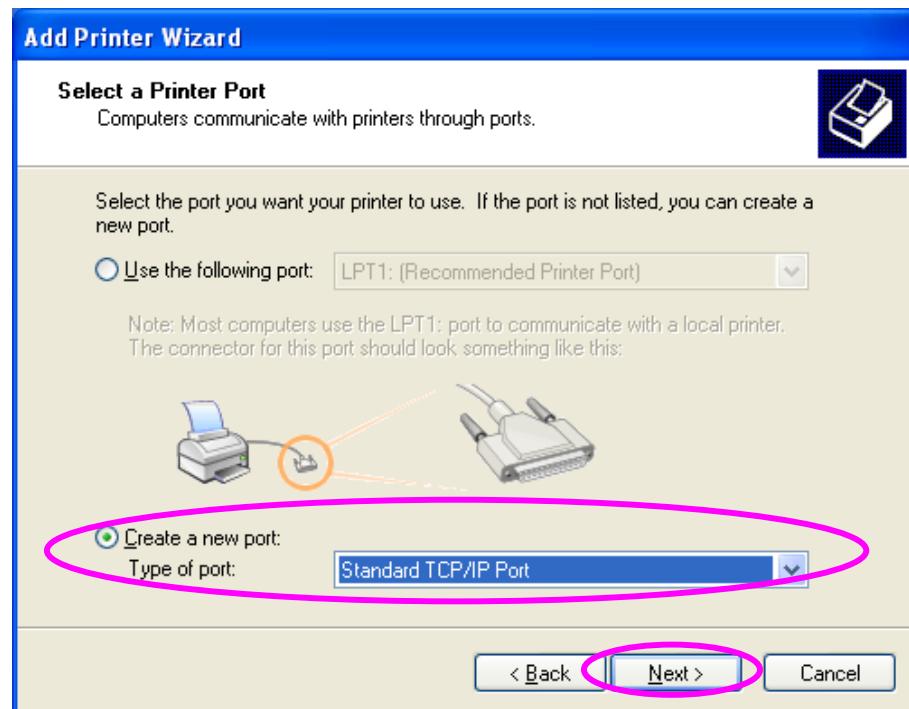
1. Click “Start”, choose “Settings” and select “Printers and Faxes”.
2. Click “Add a Printer”.
3. The “Add Printer Wizard” is displayed. Click “Next”.



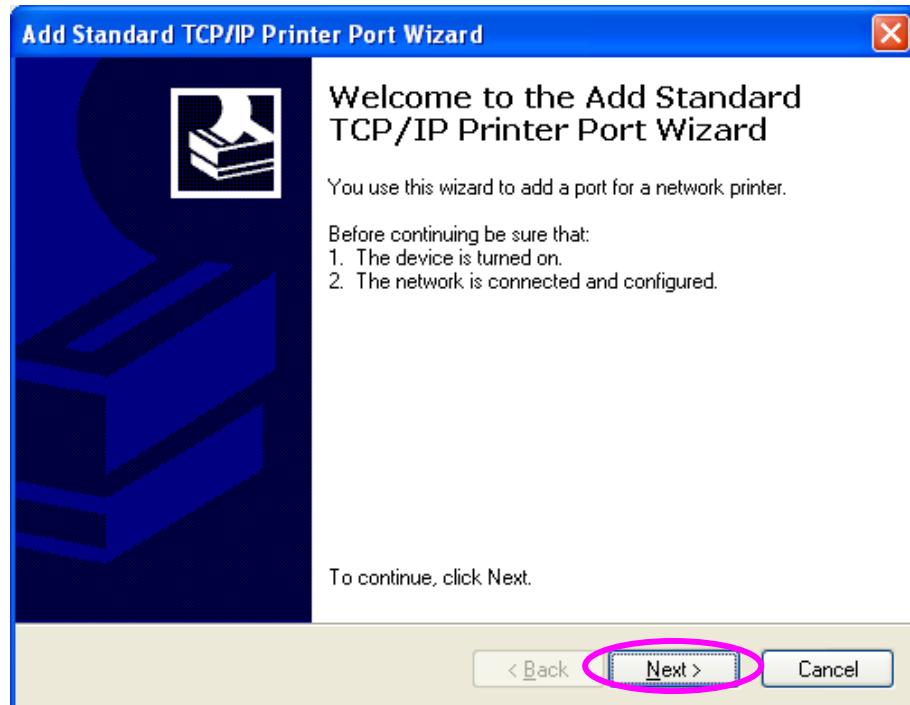
4. Select “Local Printer attached to this computer” and click “Next”.



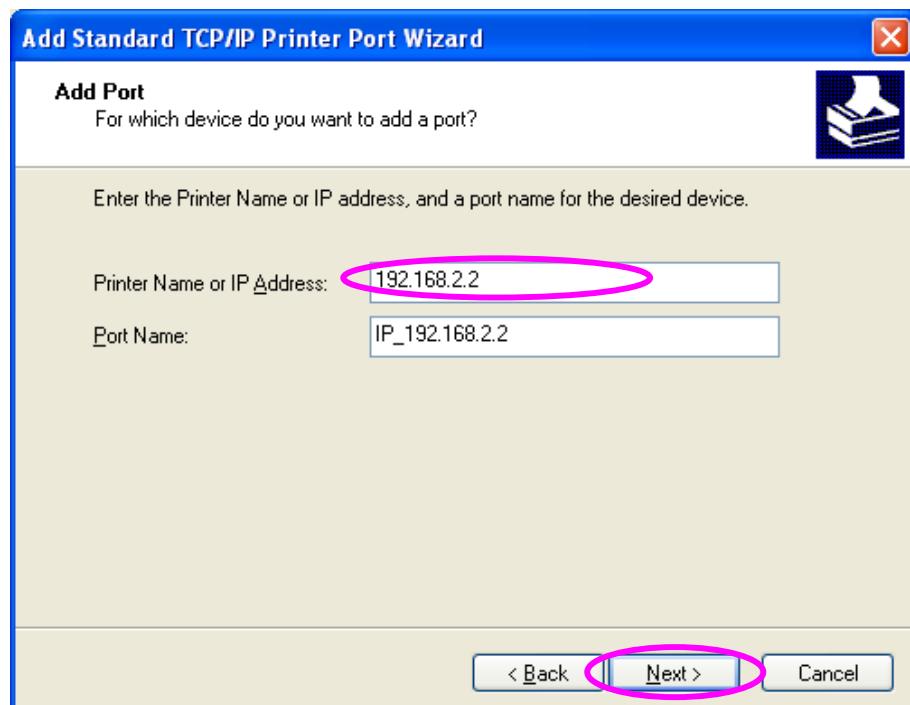
5. Choose “Create a new port” and “Standard TCP/IP Port”. Click “Next”.



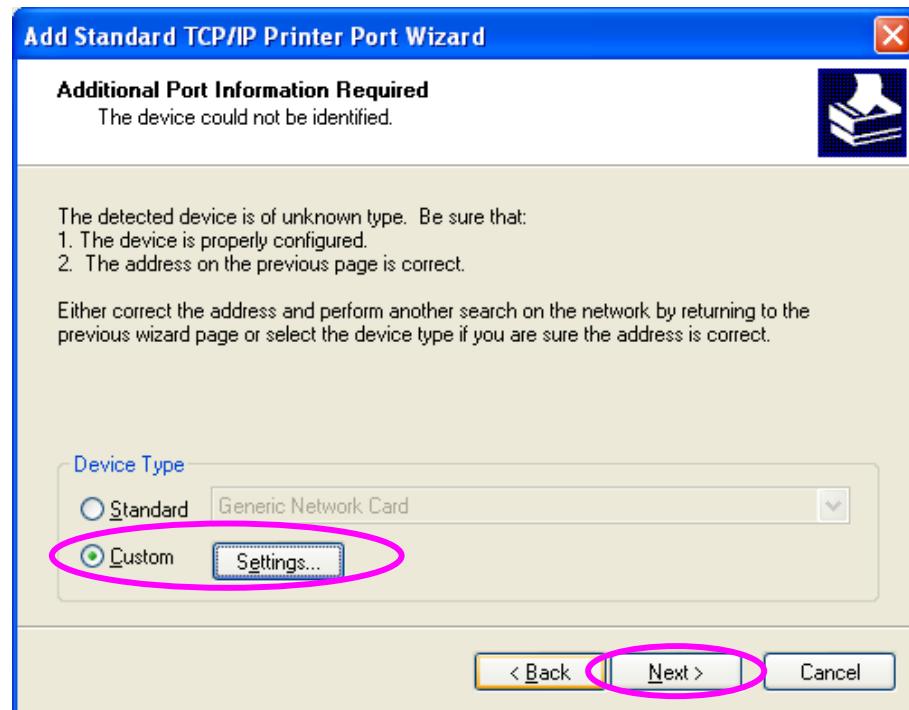
6. Please make sure that the MFP Server and the MFP or Printer have turned on and connected to the network correctly before you continue. Click “Next”.



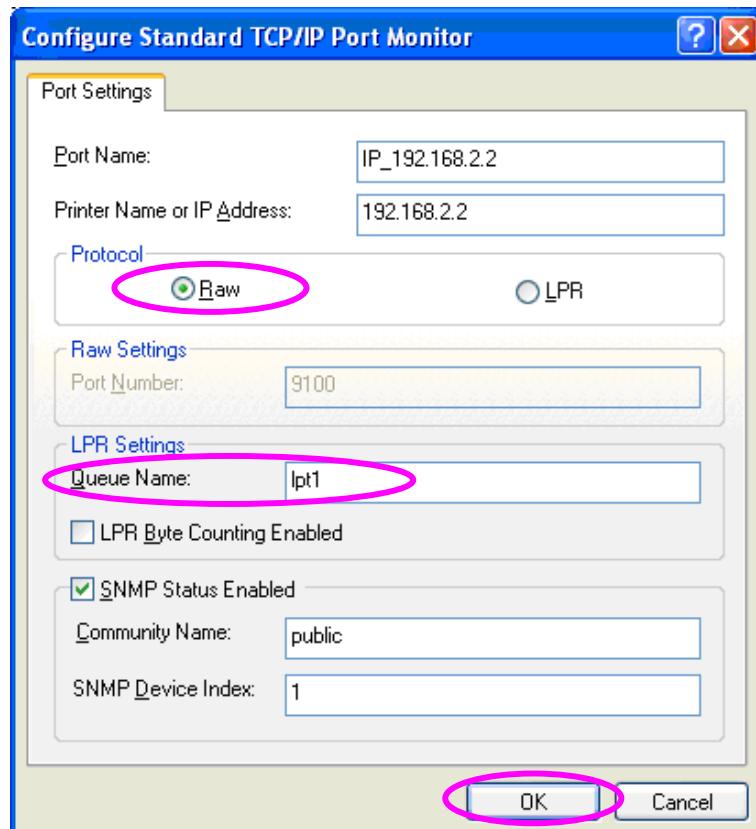
7. Enter the IP Address of the MFP Server in the “Printer Name or IP Address”. Click “Next”.



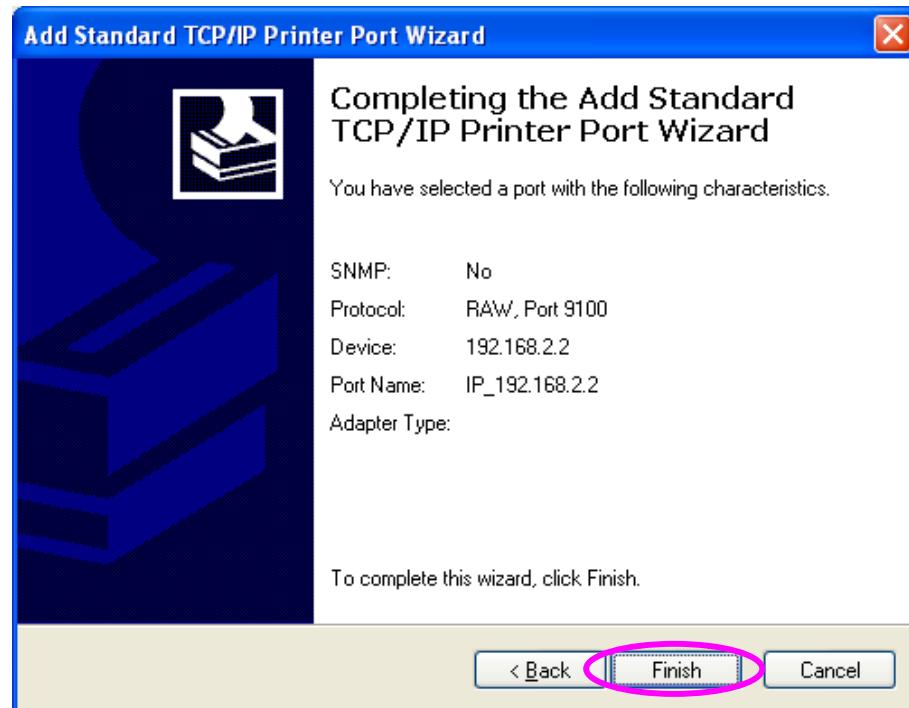
8. Select “Custom” and click “Settings”. When you have finished the settings at step 9, click “Next” to continue.



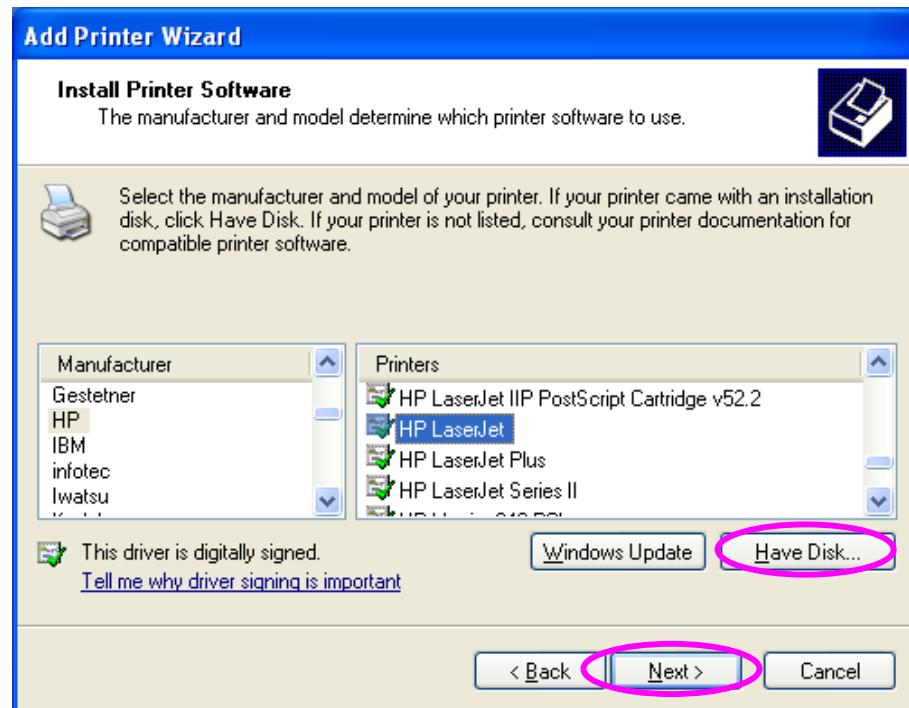
9. Select “RAW” and enter “lpt1” in the “Queue Name”, click “OK”. By default the queue name of the MFP Server is “lpt1”.



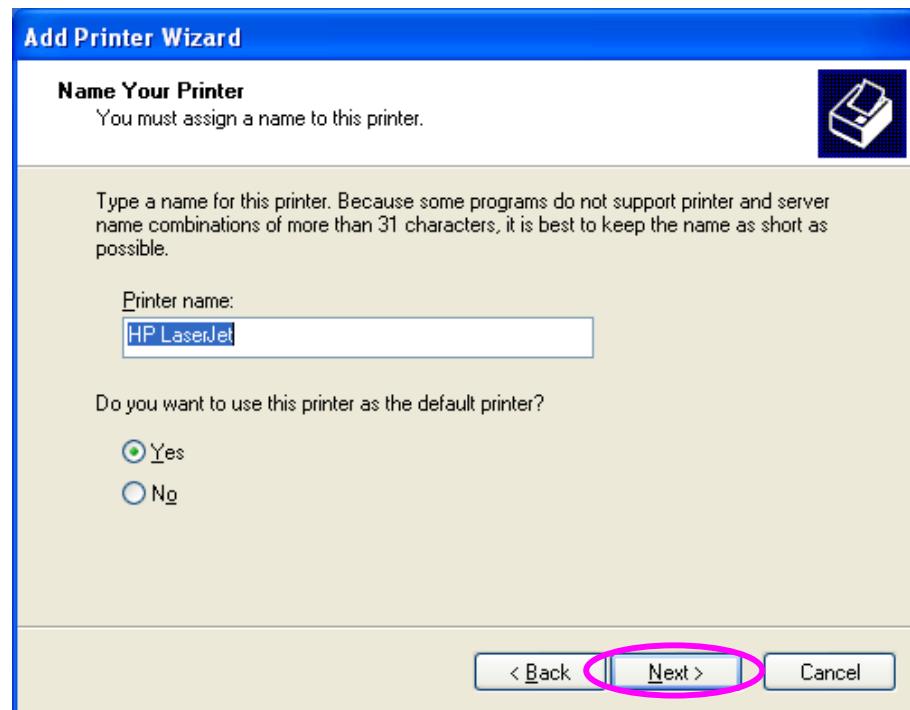
10. Click “Finish”.



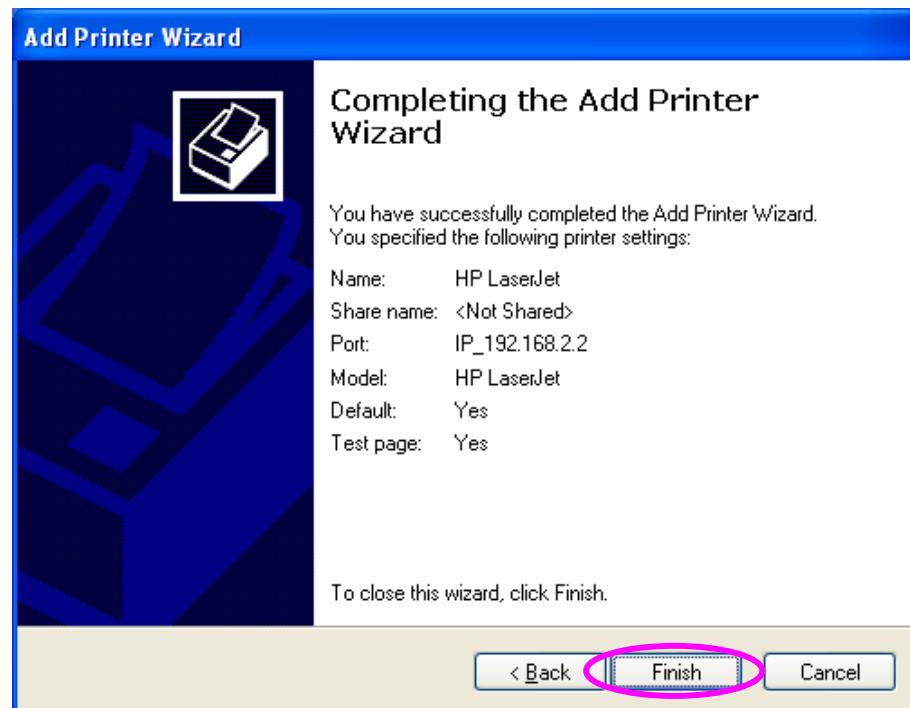
11. Select a suitable printer manufacturer and the printer model and click “Next”. If your printer is not in the list, click “Have Disk...” to install the driver of the printer. After installation, the printer model will be added to the list.



12. Choose to set the print whether as a default printer or not. Click “Next”.



13. You have added the network printer to the PC successfully. The information of the printer is displayed in the windows. Click “Finish”.



11.IPP Printing

11.1 Introduction

IPP (Internet Printing Protocol) Printing provides a convenient way of remote printing service by TCP/IP. The MFP Server can support IPP printing in Windows 2000/XP/2003 by default. By using the IPP printing, you can share the printer to all the PC's that can access the MFP Server by IP. You can even share your MFP or printer to Internet users.

11.2 System Setup

11.2.1 MFP Server Side

It is needless to do any setting on the MFP Server side. Make sure the MFP Server has correct IP settings. If you want to share the printers to Internet users, you have to set a real IP to the MFP Server. You also have to make sure that any gateway, router or firewall does not block IPP protocol if you have these gateway devices installed in your network.

11.2.2 Client Side

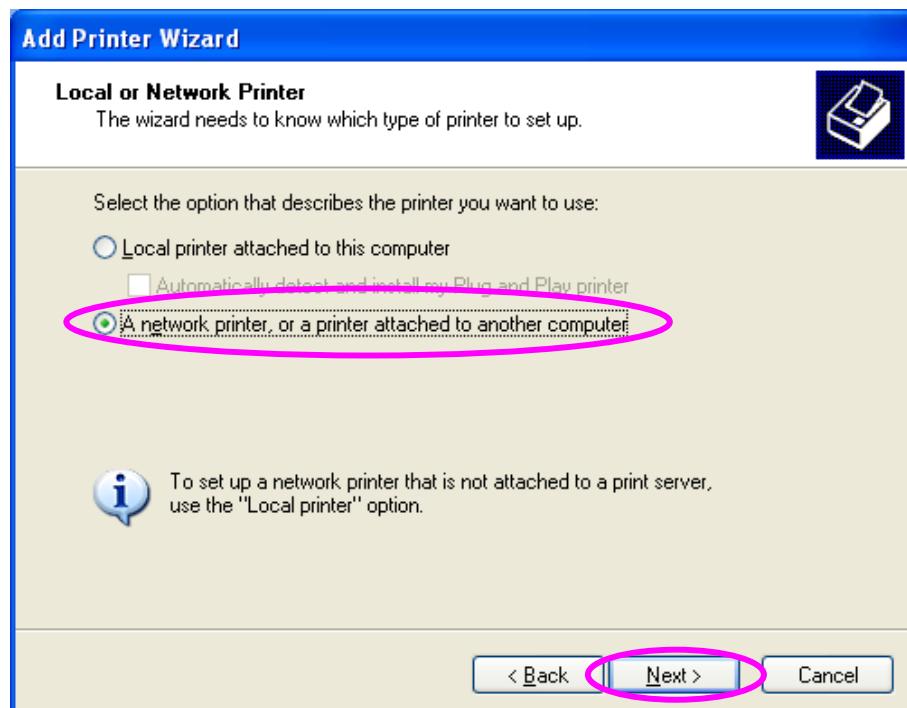
You only need to perform Window's standard **Add New Printer** procedure.

1. Click "Start", choose "Settings" and select "Printers and Faxes".
2. Click "Add a Printer".

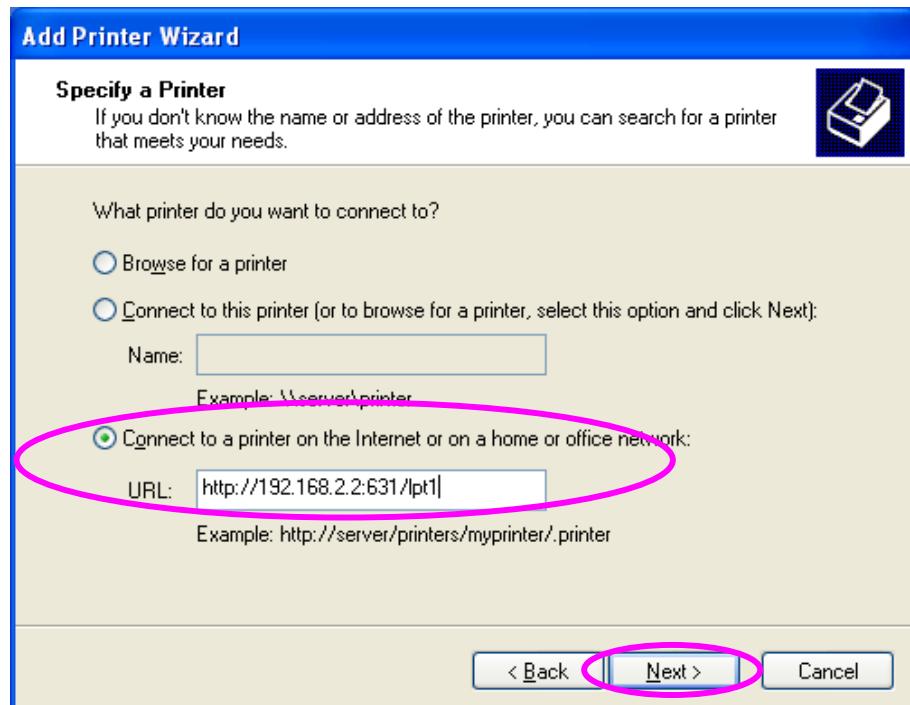
3. The “Add Printer Wizard” is displayed. Click “Next”.



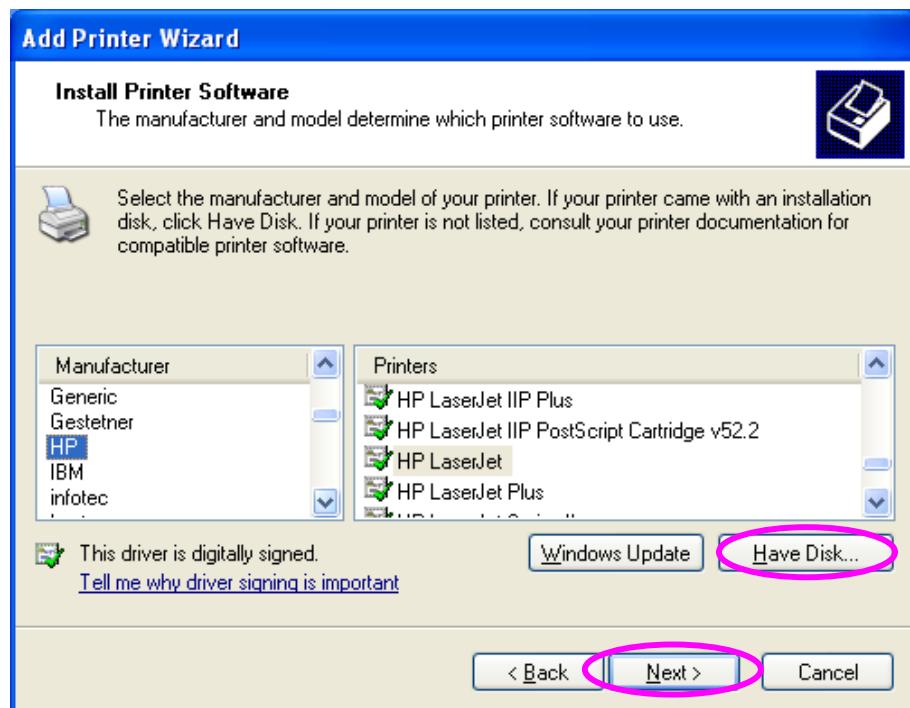
4. Select “A network printer, or a printer attached to another computer”. Click “Next”.



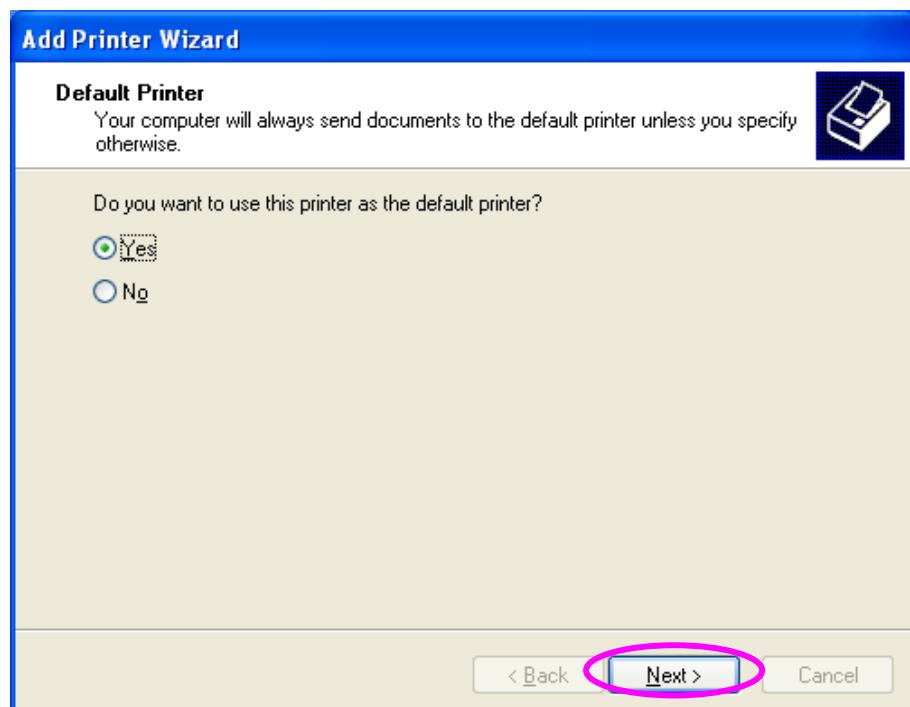
5. Select “Connect to a printer on the Internet or on a home or office network” and enter the URL of MFP Server. The URL format is “http://IP:631/Port Name”. The IP should be the MFP Server’s IP. The number 631 is IPP standard port number. Port Name is the port name of MFP Server that your printer is connected to. The default port name is “lpt1”. One example of the URL is http://192.168.2.2:631/lpt1. After entering the URL of MFP Server, click “Next”.



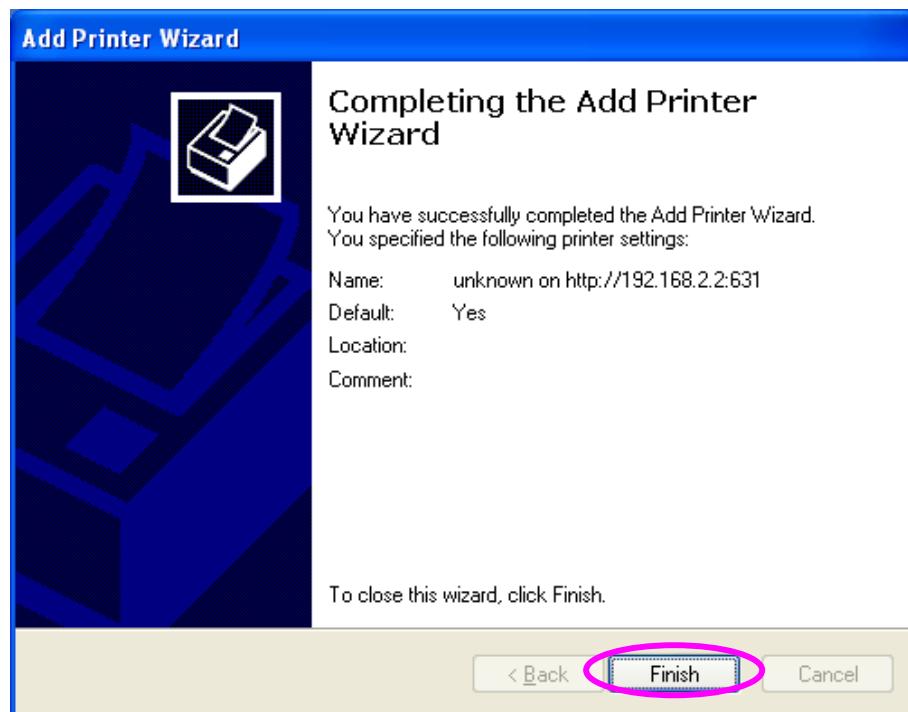
6. Select a suitable printer manufacturer and the printer model and click “Next”. If your printer is not in the list, click “Have Disk...” to install the driver of the printer. After installation, the printer model will be added to the list.



7. Choose to set the print whether as a default printer or not. Click “Next”.



8. You have added the network printer to the PC successfully. The information of the printer is displayed in the windows. Click “Finish”.



12. MFP Server Installation in Windows

98SE/Me/NT

This MFP Server supports TCP/IP network protocol and IPP, RAW and LPR printing protocols, it can be a print server when you operate it in Windows 98SE/Me/NT/2000/XP/2003, Unix/Linux and MAC OS. The IPP and RAW printing protocols can be used in Windows 2000/XP/2003. The LPR printing protocol can be used in Windows 98SE/Me/NT/2000/XP/2003, Unix/Linux and MAC OS. For the LPR, RAW and IPP settings in Windows 2000/XP/2003, please refer to Chapter 9, 10 and 11.

This chapter will introduce you how to install the MFP Server to be print server in Windows 98SE/Me/NT.

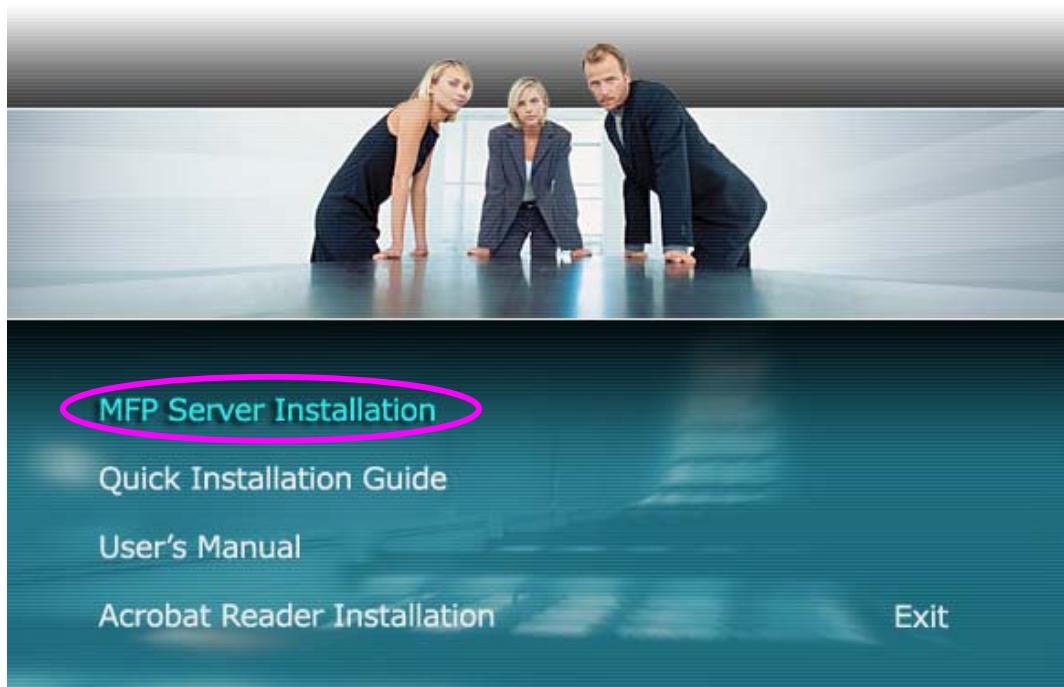
Before you start, you should have:

- One computer with Windows 98SE/Me/NT
- The TCP/IP network protocol has been installed in the PC

12.1 Software Installation Procedure

The following are the installation steps in Windows 98SE. To install MFP Server in Windows Me/NT, the procedures are similar.

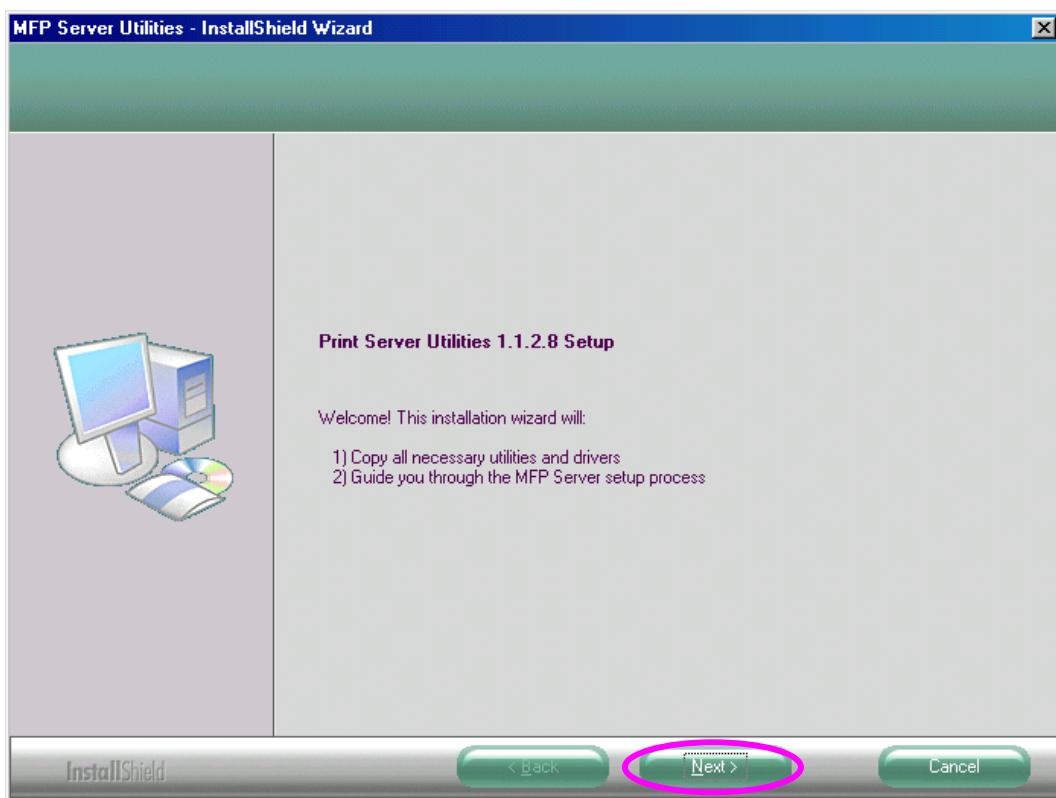
1. Insert the CD shipped along with the MFP server into your CD-ROM drive. The Autorun.exe program should be executed automatically. If not, run Autorun.exe manually from CD-ROM drive's root directory.
2. The “Installation Manager” will be displayed on the screen as following. Click “MFP Server Installation”.



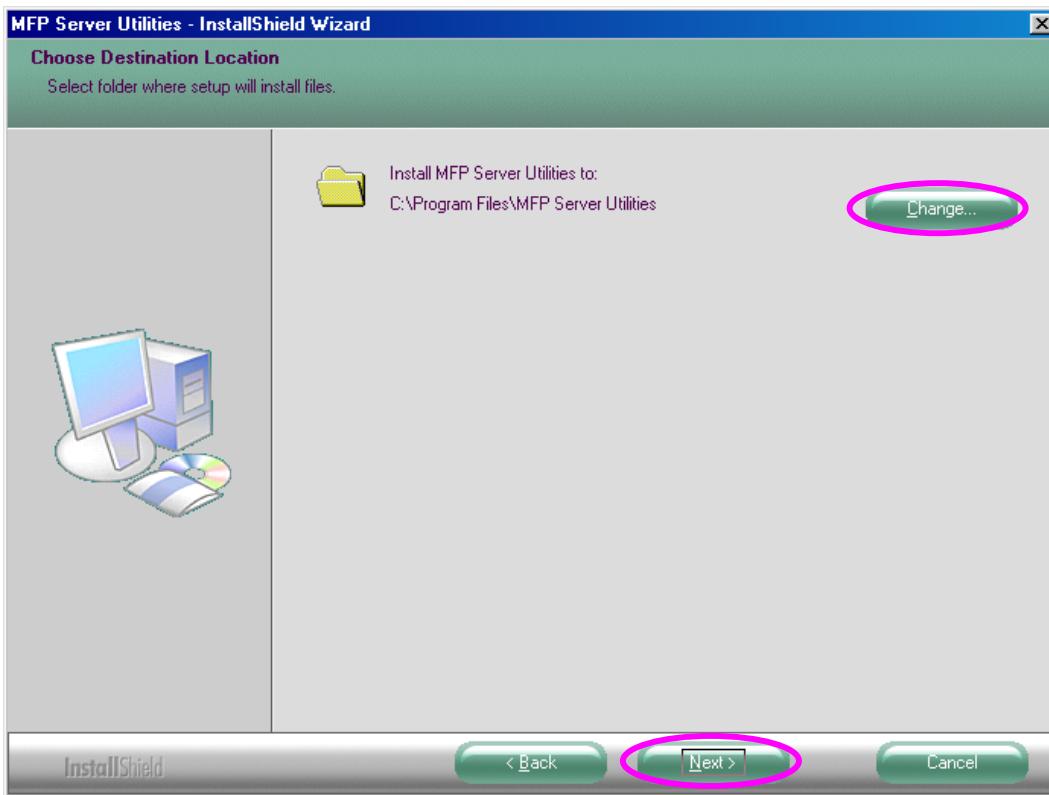
3. The message is prompted to remind you that the MFP Server will only support print sharing function since the operation system of your computer is Windows 98SE/Me/NT. Click “Ok”.



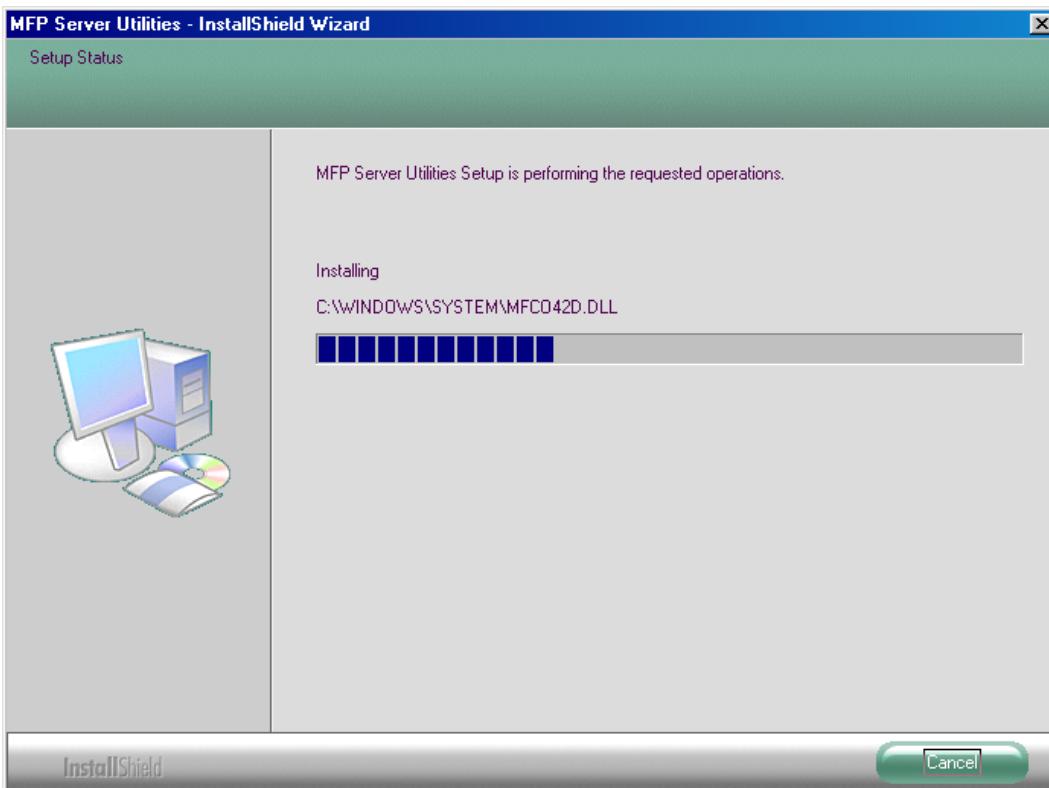
4. The “MFP Server Utilities - InstallShield Wizard ” will be displayed. Click “Next”.



5. Click "Next" to install the MFP Server utilities in the default folder or click "Change" to specify the destination folder where you would like to install the MFP Server utilities.

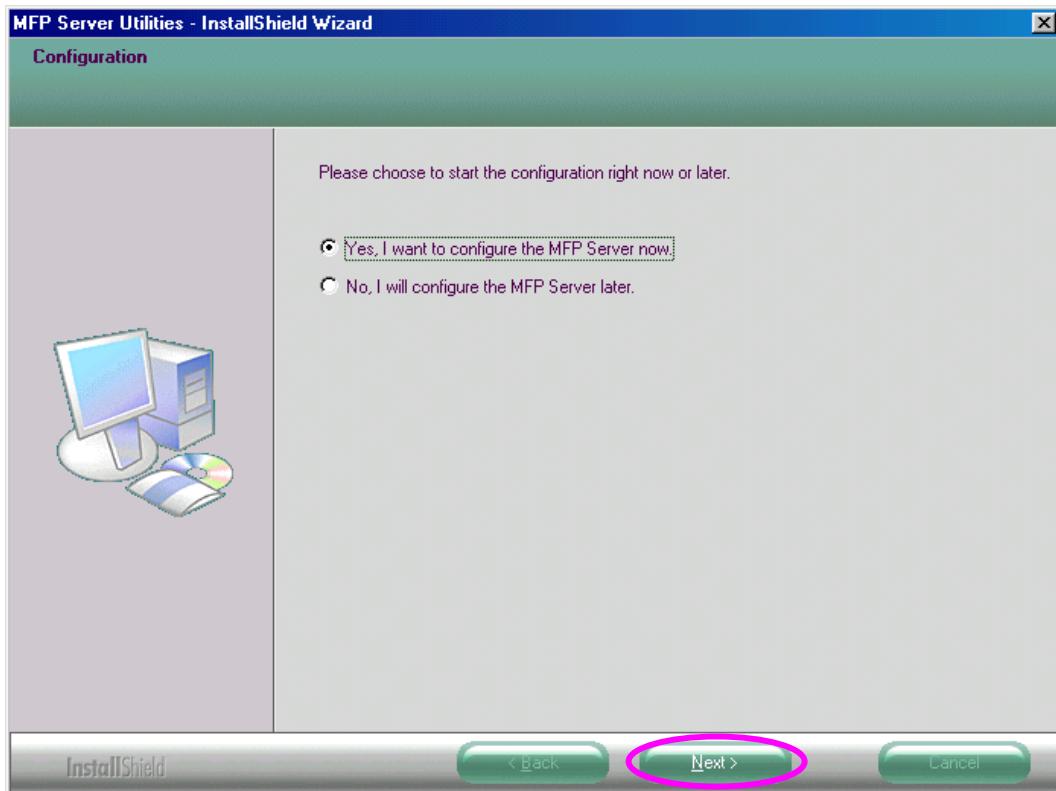


6. The MFP Server Utilities are being installed.

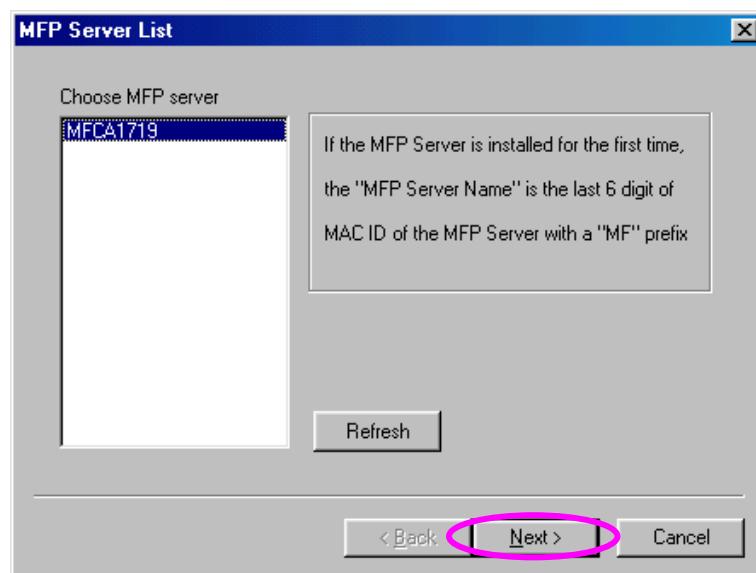


7. The “Configuration” screen is displayed. If you want to configure the MFP Server, please click “Next” directly. Or you can select “No, I will configure the MFP Server later” and click “Next” to complete the installation.

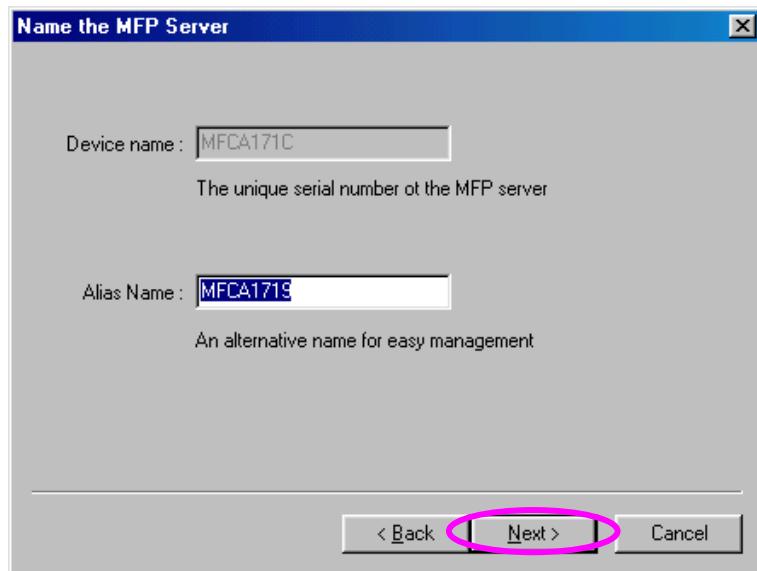
The following steps are for the MFP Server Configuration.



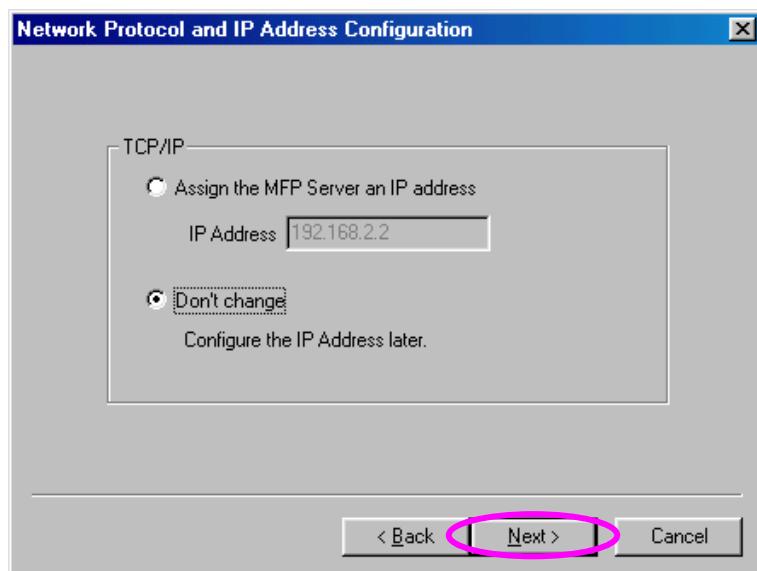
8. The MFP Server List will auto search the MFP Servers in the network. Select the MFP Server you wan to setup and click “Next” to continue.



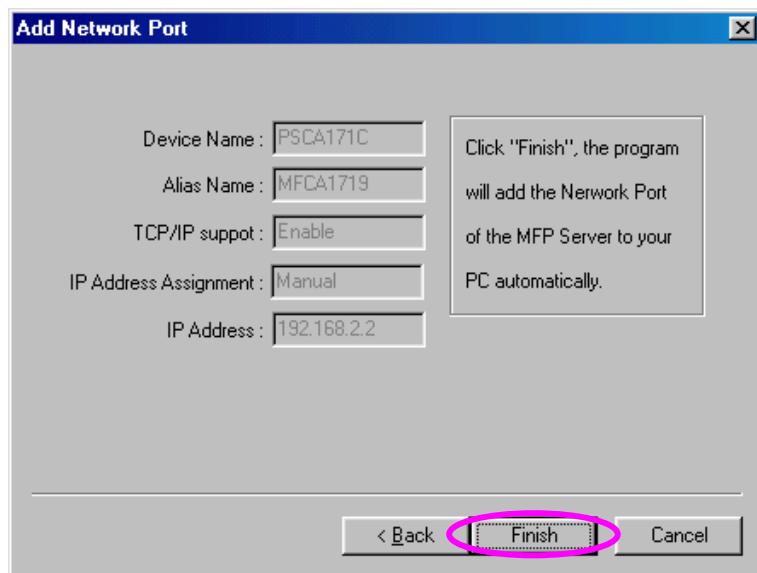
9. Set the “Alias Name” and the MFP Server here. Click on “Next”.



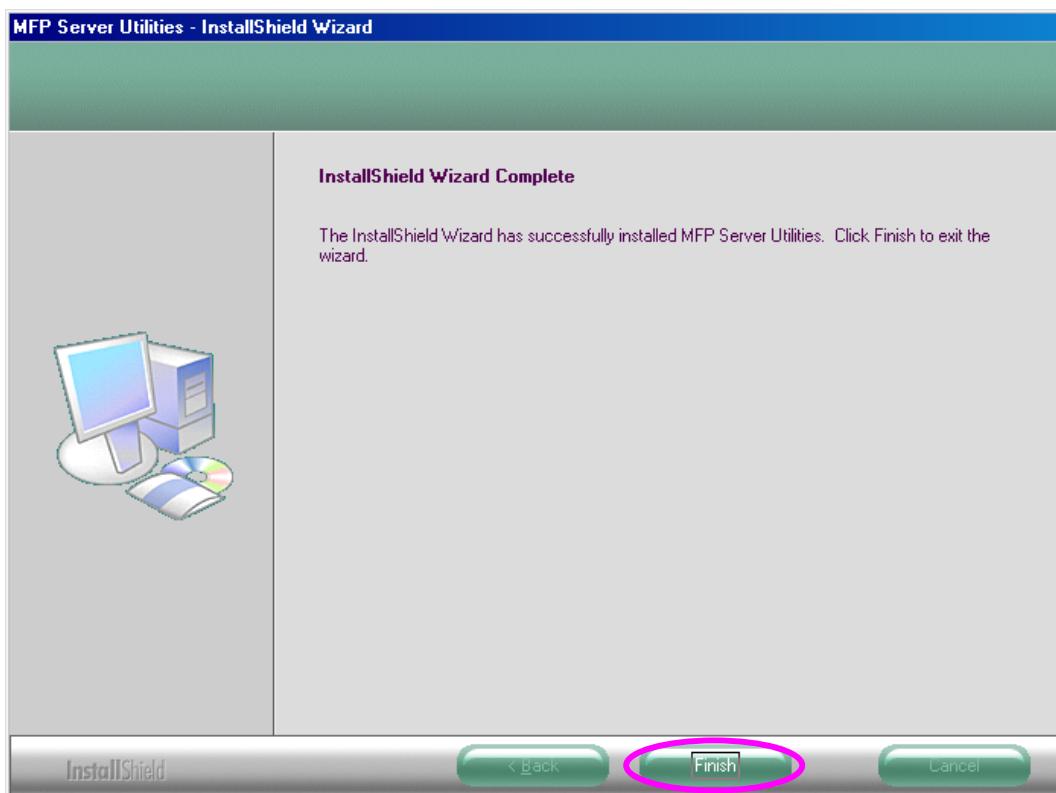
10. Setup the IP address of the MFP Server and click “Next”.



11. The settings are finished click “Finish” to apply new settings.



12. Click “Finish” to complete the installation.



12.2 Server Utilities

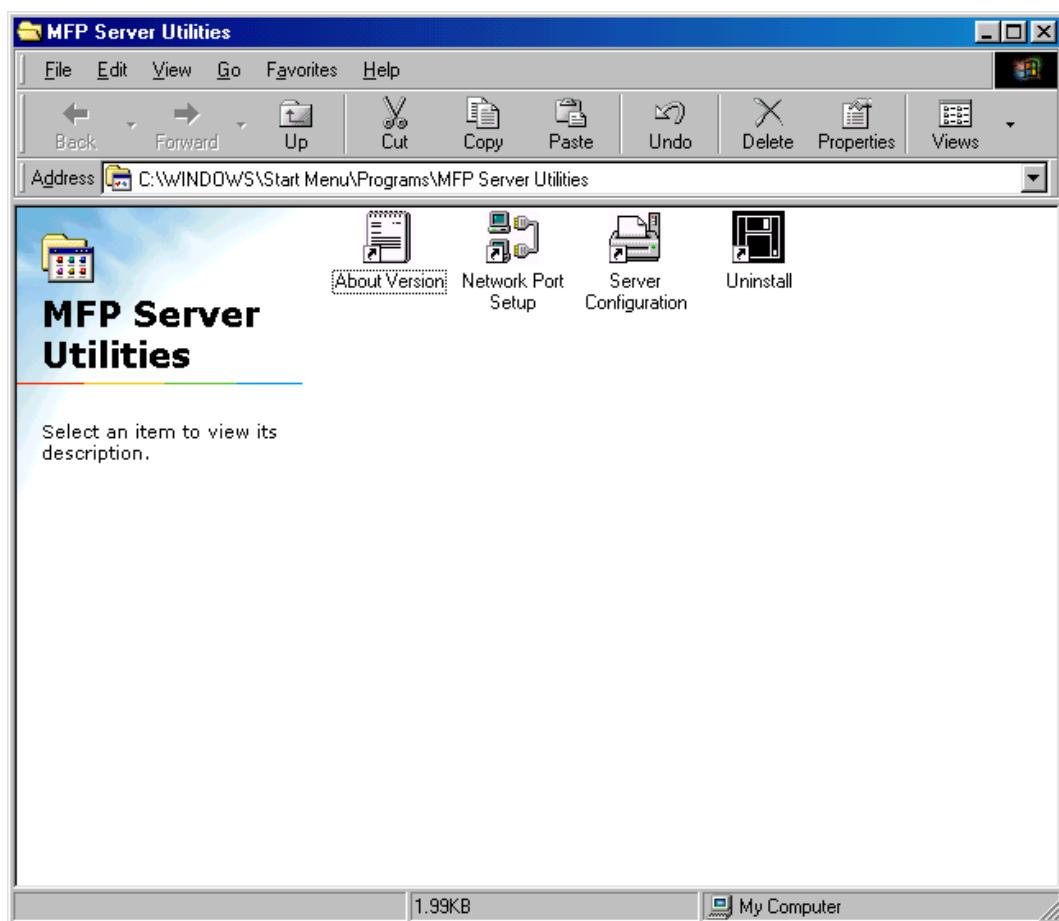
After the installation is completed, there will be three utilities and a text file in the MFP Server's Program folder.

Network Port Setup – Add the network ports of MFP Server within the network to your PC.

Server Configuration – Allows you to configure IP Address, network protocols and other advanced functions. Please refer to Chapter 6 for the detail instruction of the configuration.

Uninstall – Assistant for removing all installed software.

About Version – Display the version of each utility including in the MFP Server software programs.



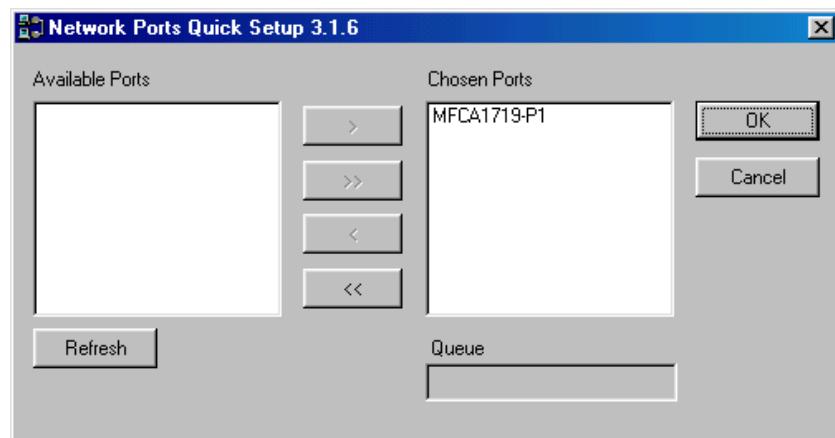
12.3 Network Port Setup

“Network Port Setup” Utility offers a very simple method to add or remove MFP Server’s printer port from the client’s computer.

During the MFP Server’s installation procedure, the system will automatically search for all MFP Servers on the network, and add the printer port of the MFP Server you have selected to user’s computer (see below).

If you have just installed another new MFP Server in the network, you must run this program first. This program will search for new MFP Servers and allow you to add the new network printer port into your computer conveniently. Perform the standard Add Printer procedure, then you can print directly to the printer through the newly installed MFP Server.

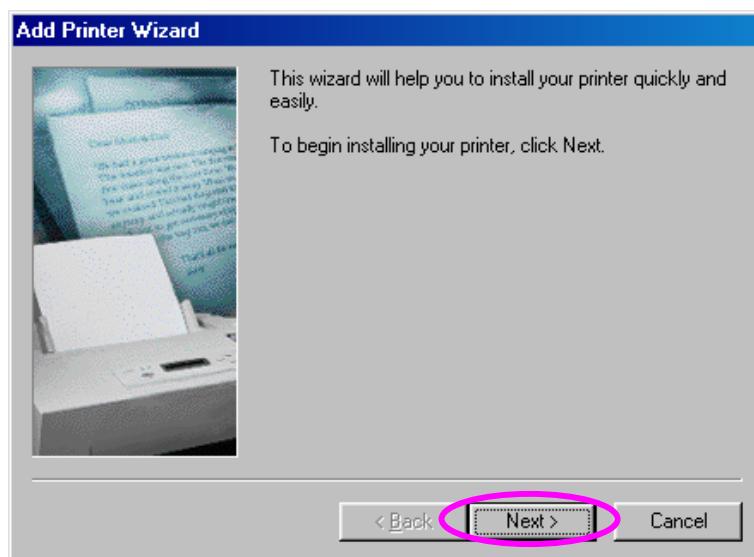
Note: Please be aware that Network Port Setup Utility can only detect and configure all MFP Servers within the same network; it cannot search and configure the MFP Servers on other subnets across network segments.



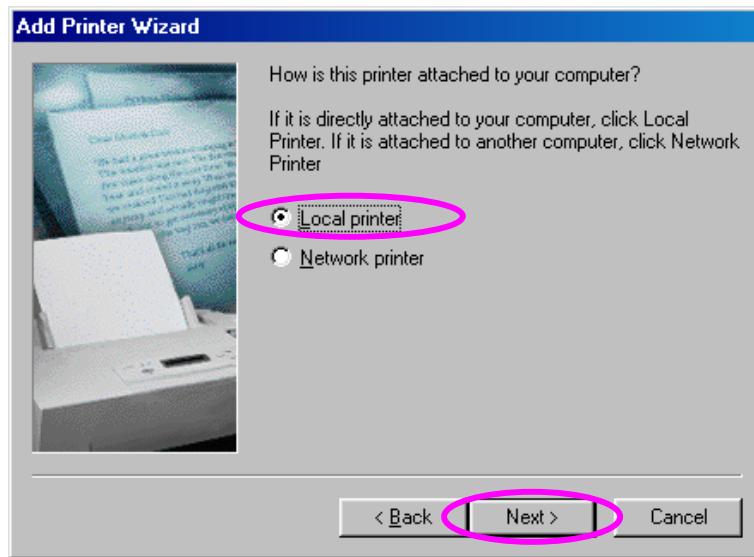
12.4 Add Printer

After adding a “Network Port” of the MFP Server to your computer, you can follow the procedure described below to add printer to the Windows. Note that following “Add Printer” steps are running in Windows 98SE, the steps in other Operating Systems are similar.

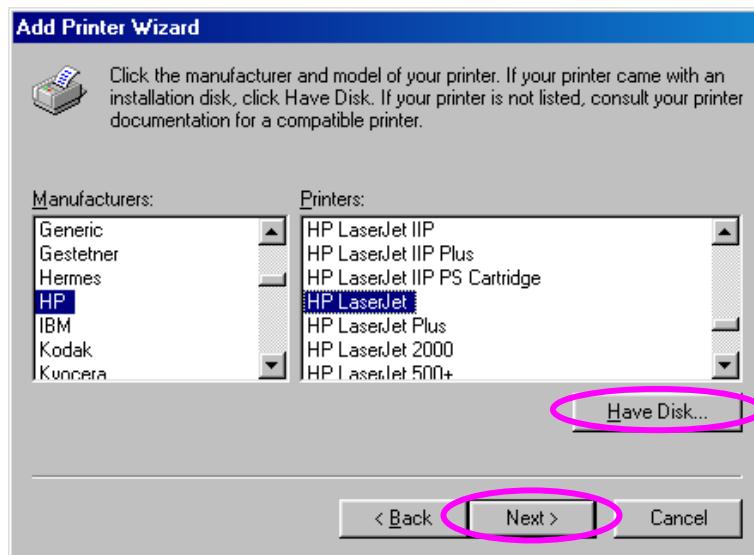
1. Click “Start”, choose “Settings” and select “Printers”.
2. Click “Add Printer”.
3. The “Add Printer Wizard” is displayed. Click “Next”.



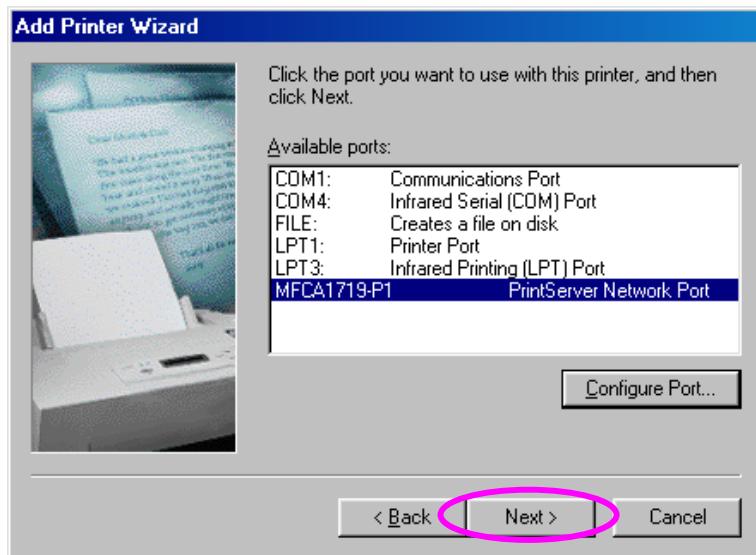
4. Select “Local printer” and click “Next”.



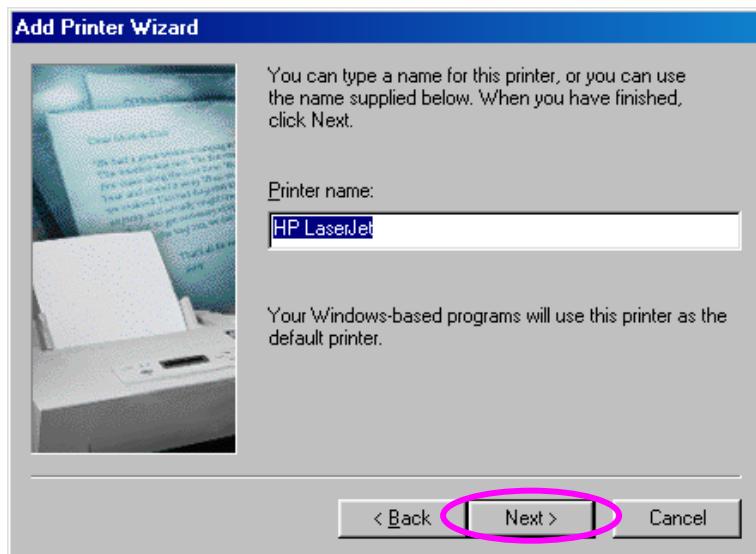
5. Select a suitable printer manufacturer and the printer model and click “Next”. If your printer is not in the list, click “Have Disk...” to install the driver of the printer. After installation, the printer model will be added to the list.



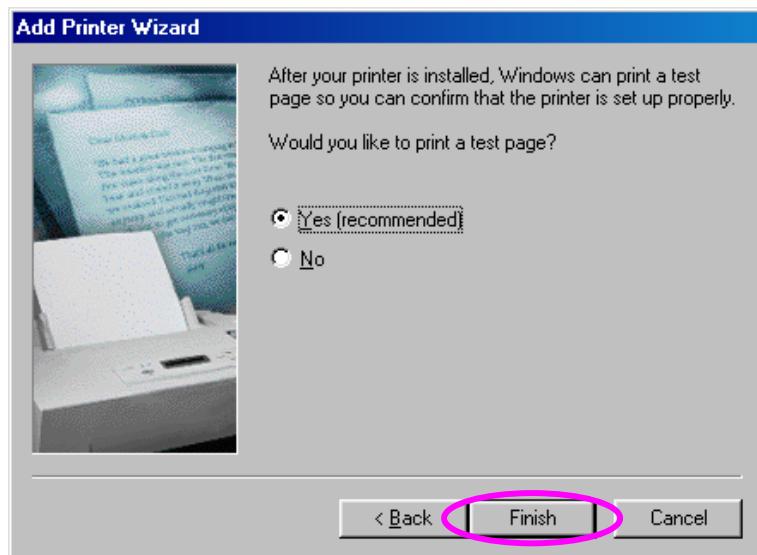
6. Choose the suitable “Print Server Network Port” and click “Next”.



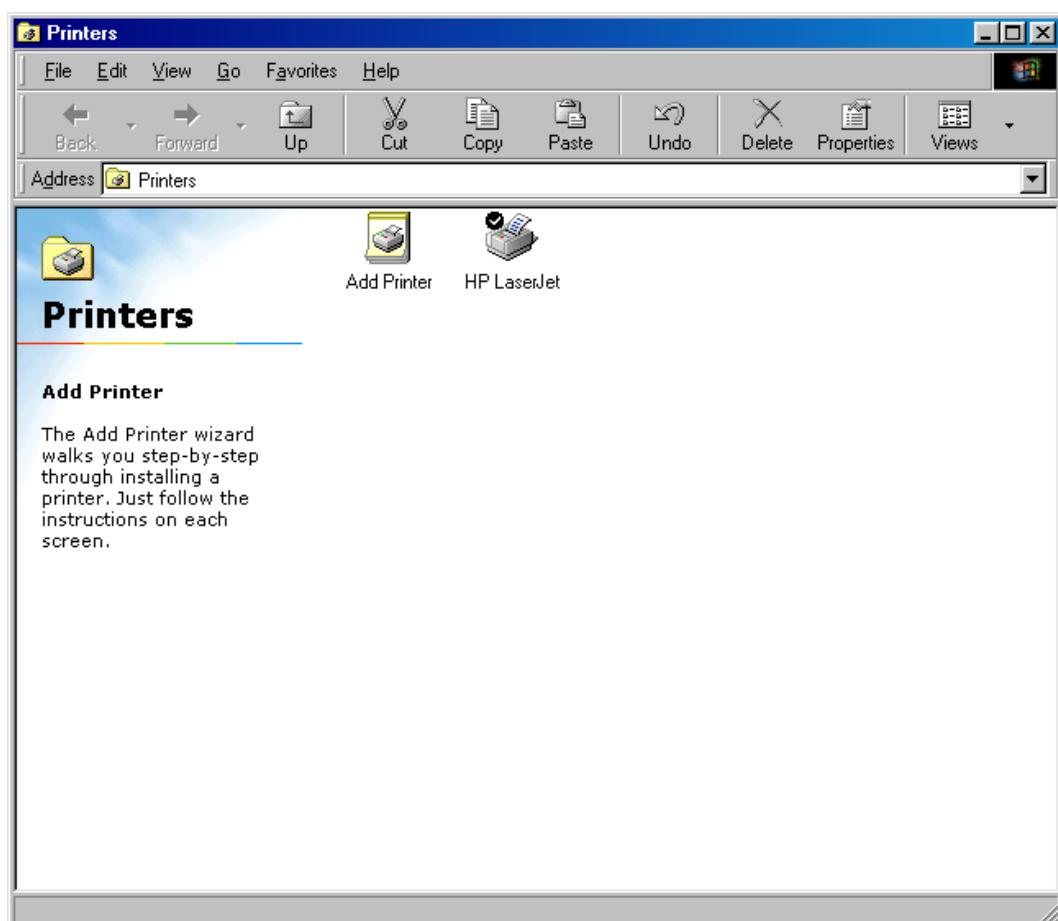
7. Please enter the new name for the printer or click “Next” to keep the default printer name.



8. Choose to print the test page or not. It is recommended to print a test page.
Click "Finish".



9. The drivers of the printer will be installed. After complete the installation, the printer has been added to your computer.



13.UNIX System Network

13.1 Introduction

The MFP Server is available for TCP/IP printing by Unix LPD (Line Printer Daemon) protocol. The LPD protocol originated with Unix release is based on the BSD version of Unix and supported under most versions of Unix.

This chapter explains how to configure the MFP Server for TCP/IP operation, and how to modify configuration files on your Unix system to allow printing to the MFP Server. The configuration examples in this manual follow the syntax for BSD based Unix systems. Please refer to the related system documentation for the correct syntax of your systems.

To configure the MFP Server for LPD printing, perform the procedures below:

1. Enable MFP Server's TCP/IP Support.
2. Set up MFP Server's IP address.
3. Verify MFP Server's IP Address.
4. Configure remote LPD printing on the host.
5. Print a test page.

In the next sections, we will describe these five procedures step by step.

13.2 Enable MFP Server's TCP/IP Support

The default configuration of the MFP Server is with TCP/IP support enabled. Anyway, you can configure the MFP Server to enable TCP/IP support using the configuration program.

13.3 Setup MFP Server's IP Address

The MFP Server must have a unique IP address in order to be recognized by the network.

You can set up the IP address on the various Unix systems using any one of the following methods:

1. DHCP (Dynamic Host Configuration Protocol)
2. BOOTP (Bootstrap Protocol)

The MFP Server will use the last two methods to obtain its IP address automatically if its IP address is configured as Auto (0.0.0.0).

13.3.1 DHCP

There are many Unix systems that support DHCP protocol, and the procedures to configure the DHCP server database are different. Please refer to the manual of Unix for the way to use different DHCP Server. It is highly recommended that the DHCP server should be located on the same network as the MFP Server.

13.3.2 BOOTP

If you have the BOOTP daemon, `bootpd`, running on your UNIX system that is accessible by the MFP Server, you can use the BOOTP protocol to set up the IP address of the MFP Server. We recommend that the BOOTP server should be located on the same subnet as the MFP Server. If you use Network Information Services (NIS) in your system, you may need to rebuild the NIS map with the BOOTP services before doing the following BOOTP configuration. To rebuild the NIS map, please refer to your system documentation.

To configure the IP address data for the BOOTP server, you will need to log in the host of BOOTP server as the superuser (root). Perform the following steps to add address entries,

1. Optionally, assign a name corresponding to the MFP Server's IP address.

You can add this address to the `/etc/hosts` file, by adding a line such as:

```
203.66.191.12      pserver
```

2. Add an entry to the host's `/etc/bootptab` file, similar to the following:

```
hostname:\n:ht=1:\n:ha=MFP_Server_ethernet_address:\n:ip=MFP_Server_ip_address:
```

Lines should be indented with tabs.

Where `hostname` is the device name of a MFP Server, the `ht=1` tag specifies the hardware type is Ethernet, the `ha=` tag specifies the Ethernet address of a MFP Server, which is the Node ID located on the MFP Server. The `ha` tag must be preceded by the `ht` tag. The `ip=` tag should correspond to the IP address you want to assign to the MFP Server.

For example, a MFP Server with the following configuration:

Node ID: 0000B4010101 (this implies Ethernet address is 0000B4010101),

IP address: 203.66.191.12

The entry for this MFP Server in the /etc/bootptab file should be:

```
MF010101:\n:ht=1:\n:ha=0000B4010101:\n:ip=203.66.191.12:
```

13.4 Verify MFP Server's IP Address

To verify your MFP Server is responding to the newly assigned IP address using a PING command:

```
ping ip-address
```

13.5 Configure Remote LPD Printing on the Host

The procedure you use to configure your Unix host(s) to allow printing to your network remote MFP Server varies between different varieties of Unix. The procedure below can be used for Unix variants that are related to BSD Unix, such as SunOS or Linux. For other versions of Unix, consult your system documentation, keeping in mind that:

1. The MFP Server should be treated as a BSD networked MFP Server host.
2. The host name should be the name (or IP address) that you have assigned to the MFP Server.
3. The printer name (or queue name) on the remote host should be lpt1, lpt2 or lpt3, the name of the printer port on the MFP Server.

You will need to perform the tasks below, logged in as the superuser (root).

To configure your Unix host for printing,

1. Optionally, assign a name corresponding to the MFP Server's IP address. You can add this address to the /etc/hosts file, by adding a line such as:

203.66.191.186 pserver

2. Create a spool directory for the printer in the same directory where spool directories are normally kept on the machine, such as /var/spool or /var/spool/lpd:

```
mkdir /var/spool/lpd/pserverd  
chown daemon /var/spool/lpd/pserverd  
chgrp daemon /var/spool/lpd/pserverd  
chmod 775 /var/spool/lpd/pserverd
```

3. Add an entry to the host's /etc/printcap file, similar to the following:

```
printer-name:\  
:lp=:\  
:rm=203.66.191.186:\  
:rp=lpt1:\  
:lf=/var/spool/lpd/pserverd.log:\  
:sd=/var/spool/lpd/pserverd:\  
:mx#0:
```

Lines should be indented with tabs. More than one printer name can be used, with variants separated by vertical bars (name1|name2).

The rm= entry should correspond to the IP address you have assigned to the MFP Server. You can also use a host name if you have assigned one in the /etc/hosts file.

The sd= entry should correspond to the spool directory you created in the previous step.

The rp= entry should correspond to the port name of the remote printer. The values should be one of lpt1, lpt2 or lpt3 depends on the printer port.

The MFP Server should now be available for printing from your Unix host.

14. MFP Server Installation in MAC OS

LPR Printing (Line Printer Remote technology) allows Macintosh computers to connect to MFPs or printers via TCP/IP. LPR Printing can be set up on any Macintosh with version 9.x above.

To enable LPR Printing in Macintosh, please follow the procedures below.

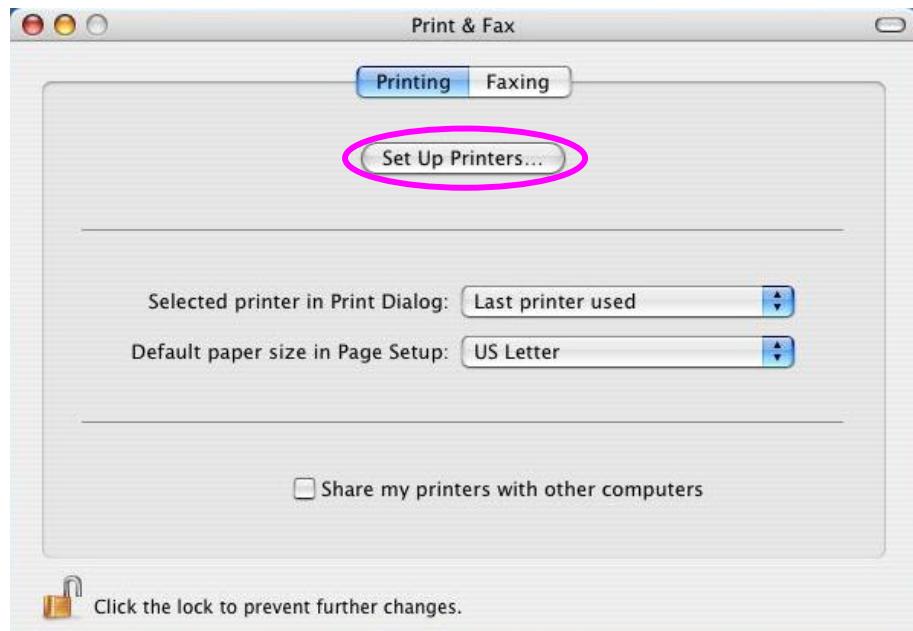
1. In the Desktop, click "System Preferences".



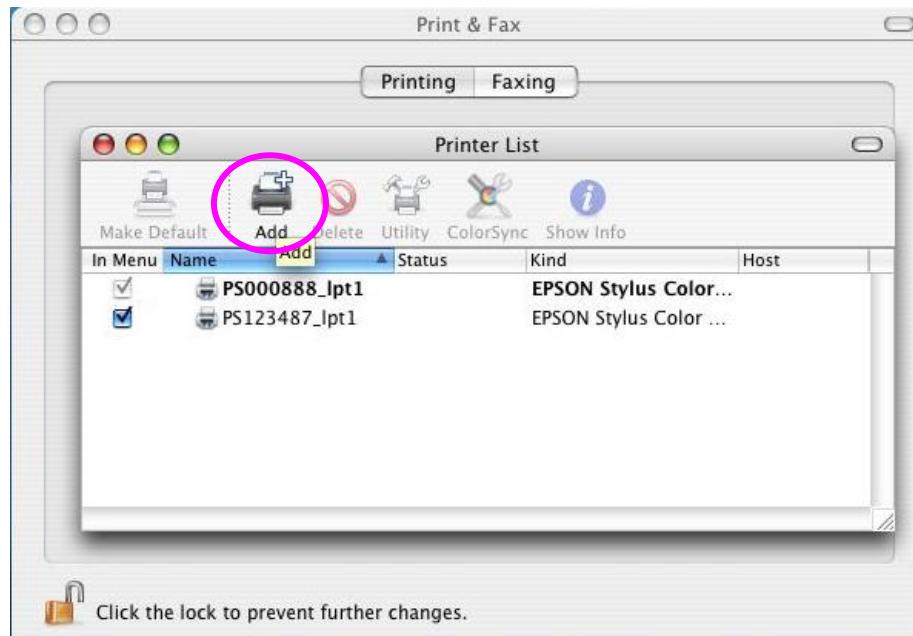
2. Click "Print & Fax".



3. From the “Print & Fax” screen, click “Set Up Printers...”.



4. Click “Add” to add the new MFP Server through TCP/IP.



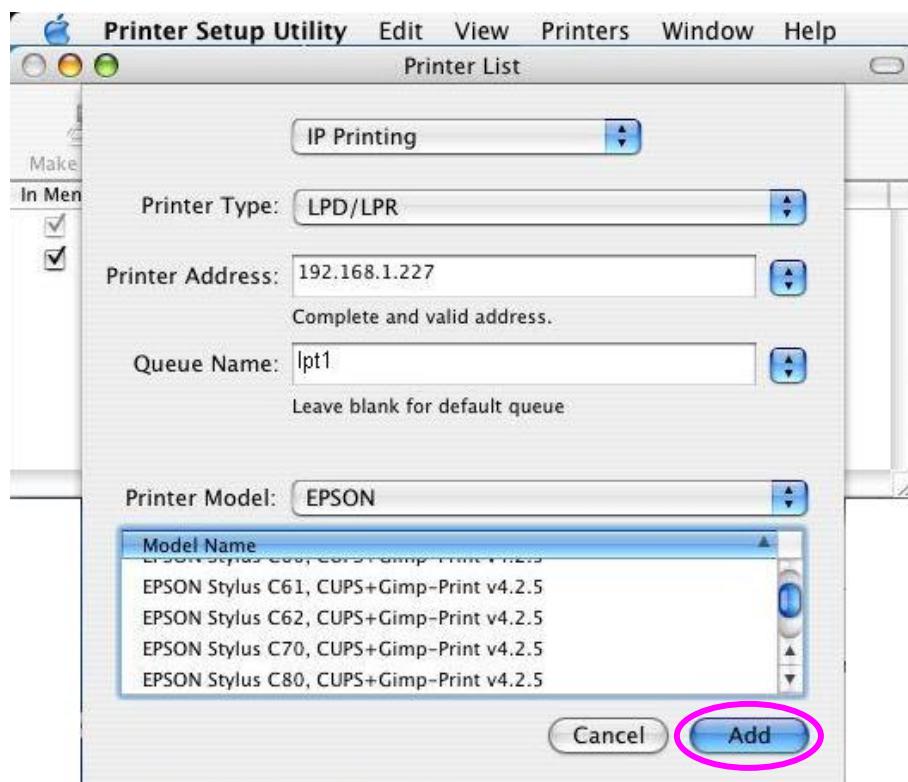
5. Enter the “Printer Type”, “Printer Address” and “Queue Name” and select the “Printer Model” to setup the MFP Server. Click “Add” to continue.

Printer Type: LPD/LPR

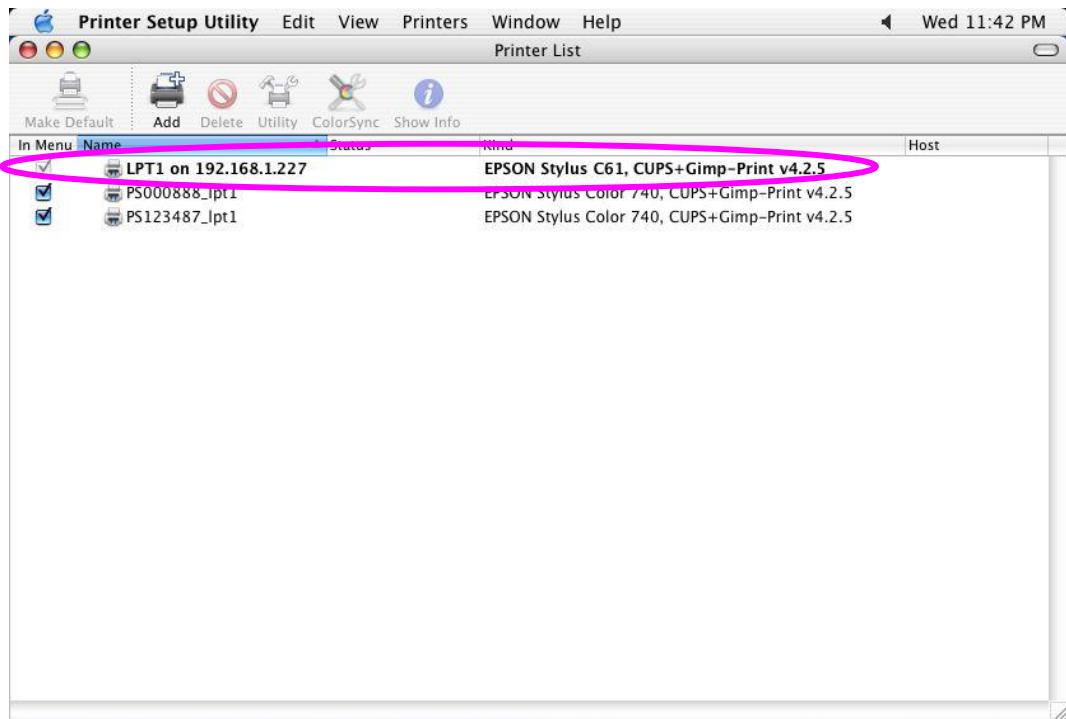
Printer Address: Input the IP Address of the MFP Server

Queue Name: The queue name of the MFP Server is “lpt1”.

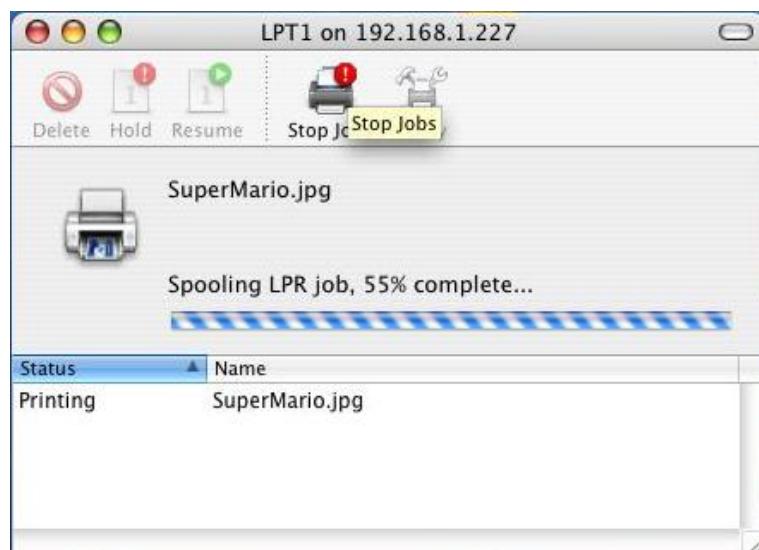
Printer Model: Select the MFP or Printer Model that is attached to the MFP Server.



6. The MFP Server is installed completely. You can see it in the “Printer List”.



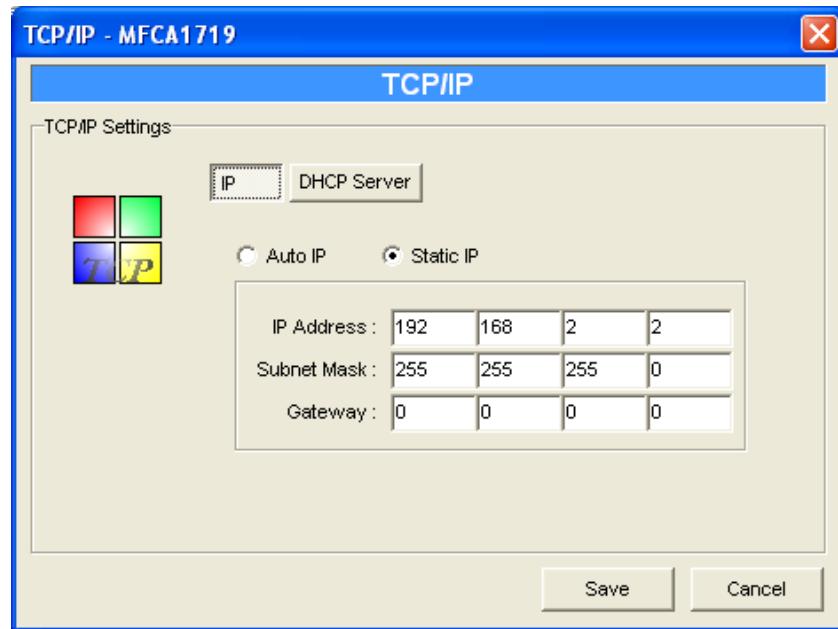
7. You can print a file to check whether the MFP Server is installed successfully.



15.Troubleshooting

1. This product is not found even after searching by the “MFP Manager”.
 - Check if the power adapter and the network cable are connected to the MFP Server properly.
 - Check if the LAN and Ready LEDs are turned on.
 - Check if the IP Address of the MFP Server is in the network segment as your computer.
 - If you are not sure the IP Address setting of the MFP Server, please check the TCP/IP setting of the MFP Server from the “Server Manager”.
2. The ways to change the IP Address of the MFP Server.
 - A DHCP Server is installed in the network
If a DHCP Server is installed, you can setup to let the MFP Server get IP Address from the DHCP Server automatically.
 1. Open “Server Manager” and then select “TCP/IP” setting.
 2. Select “Auto IP” and click “Save”.
 3. Reboot the MFP Server.
 - Set up the IP Address Manually
 1. Open “Server Manager” and then select “TCP/IP” setting.
 2. Select “Static IP” and enter the IP Address and Subnet Mask as your computer. Click “Save”.
 3. Reboot the MFP Server.

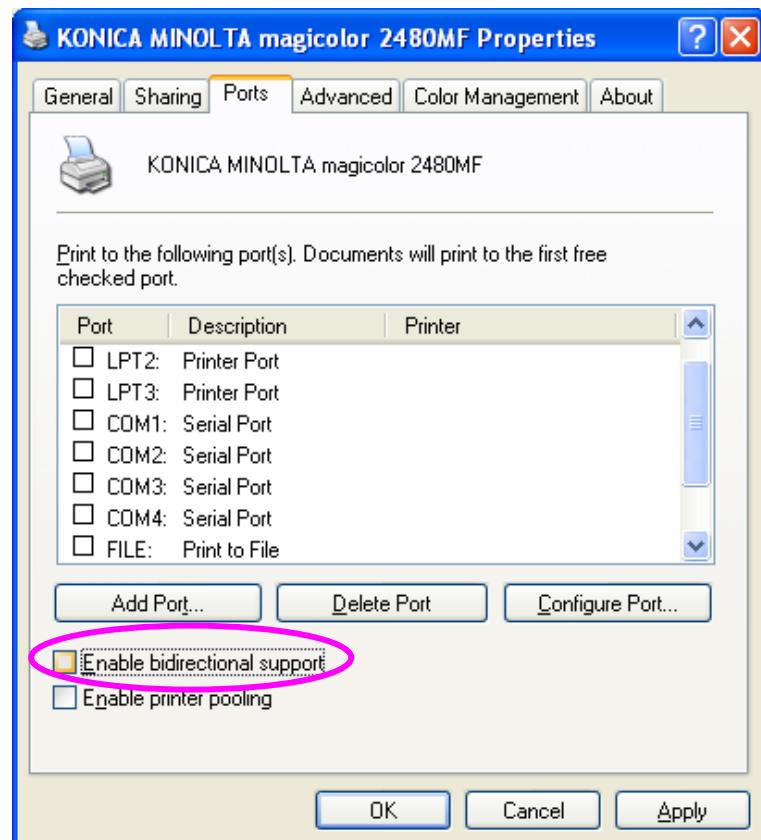
Note: Set a static IP Address to MFP Server is recommended since DHCP assignment may dramatically change the IP Address for MFP Server.



3. A user always connects the MFP Server.
 - Contact with the current user and ask the user to disconnect the device.
 - If the user forgets to disconnect the device, you can inform the administrator to release the device.
4. I can't use the MFP to scan, print, read the card reader or fax a file even I have followed the installation of MFP as the manual.
 - Check if the MFP you are using is in the "Compatibility List" in Appendix.
 - Attached the MFP to PC directly and try if the MFP is able to use.
5. My computer has installed the firewall and the MFP Server can't work normally in my computer.
 - Some firewalls, for example, the "Network Access Manager" firewall program attached with nVidia network card may block the communication between MFP Server and your computer; you have to add the MFP Server programs to the exception list of your firewall. The programs are as follows.
 1. Add "servoap.exe" program to the exception list.
 2. Add "mfpgagent.exe" program to the exception list.

6. When I use LPR, IPP or RAW printing, the printing jobs are not able to print to the MFP or printer.

- Check if the MFP is “Idle” but not being connected. Printing from all PC connected to MFP server will be performed when the MFP Server is not being connected. The printing jobs are been queuing in the Windows spooler when there is a PC which is under connected with MFP Server.
- Disable “Bi-Directional Support”. Please follow the steps below.
 1. Right click the printer from “Printer and Faxes” in the Windows.
 2. Select “Properties” and select “Ports”.
 3. Uncheck the “Enable bidirectional support”.



- Check if the MFP you are using is in the “Compatibility List” in Appendix or contact your dealer.

Appendix: MFP Server Compatibility List

The compatibility information is the first released in June 2006. For the latest information, please contact with your dealer.

Note:

“N/A” means that the MFP doesn’t support the function.

“--” means that the function is not being tested yet.

No.	Brand Name	MFP Model	Windows 2000 & XP			
			Print	Scan	Fax	Card Reader
1.	HP	Laser Jet 1020 (GDI)	✓	N/A	N/A	N/A
2.	HP	PSC 1210	✓	✓	N/A	N/A
3.	HP	PSC 1350	✓	✓	N/A	N/A
4.	HP	PSC 1410	✓	✓	N/A	N/A
5.	HP	PSC 1510	✓	✓	N/A	N/A
6.	HP	PSC 1610	✓	✓	N/A	✓
7.	HP	PSC 2210	✓	✓	--	✓
8.	HP	PSC 2310	✓	✓	N/A	✓
9.	HP	PSC 2355	✓	✓	N/A	✓
10.	HP	PSC 2410	✓	✓	N/A	✓
11.	HP	PSC 2510	✓	✓	N/A	✓
12.	HP	PhotoSmart 2575	✓	✓	N/A	✓
13.	HP	PhotoSmart 2610	✓	✓	--	✓
14.	HP	PhotoSmart 2710	✓	✓	--	✓
15.	HP	PhotoSmart 3110	✓	✓	--	✓
16.	HP	PhotoSmart 3310	✓	✓	--	✓
17.	HP	Office Jet 4255	✓	✓	--	N/A
18.	HP	Office Jet 5510	✓	✓	--	N/A
19.	HP	Office Jet 5610	✓	✓	--	N/A
20.	HP	Office Jet 6110	✓	✓	--	N/A
21.	HP	Office Jet 6210	✓	✓	--	N/A
22.	HP	Office Jet 7210	✓	✓	--	✓
23.	HP	Office Jet 7410	✓	✓	--	✓
24.	HP	Office Jet 9100	✓	✓	--	✓
25.	EPSON	CX1500	✓	✓	N/A	N/A

No.	Brand Name	MFP Model	Windows 2000 & XP			
			Print	Scan	Fax	Card Reader
26.	EPSON	CX3700	✓	✓	N/A	N/A
27.	EPSON	CX4700	✓	✓	N/A	✓
28.	EPSON	PHOTO 4990 Scanner	N/A	✓	N/A	N/A
29.	EPSON	RX430	✓	✓	N/A	✓
30.	EPSON	RX510	✓	✓	N/A	✓
31.	EPSON	RX520	✓	✓	N/A	✓
32.	EPSON	RX530	✓	✓	N/A	✓
33.	EPSON	RX630	✓	✓	N/A	✓
34.	CANON	MPC 190	✓	✓	N/A	N/A
35.	CANON	PLXMA MP110	✓	✓	✓	N/A
36.	CANON	PLXMA MP130	✓	✓	✓	N/A
37.	CANON	PLXMA MP150	✓	✓	N/A	N/A
38.	CANON	PLXMA MP170	✓	✓	N/A	✓
39.	CANON	PLXMA MP450	✓	✓	N/A	✓
40.	CANON	PLXMA MP700	✓	✓	--	✓
41.	CANON	PLXMA MP730	✓	✓	--	✓
42.	CANON	PLXMA MP780	✓	✓	--	✓
43.	LEXMARK	X3330	✓	✓	N/A	N/A
44.	LEXMARK	X3350	✓	✓	N/A	N/A
45.	LEXMARK	X5150	✓	✓	N/A	N/A
46.	LEXMARK	X6150	✓	✓	✓	N/A
47.	LEXMARK	X6170	✓	✓	✓	N/A
48.	Brother	MFC-210C	✓	✓	✓	✓
49.	Brother	MFC-215C	✓	✓	✓	✓
50.	Brother	MFC-2820	✓	N/A	✓	N/A
51.	Brother	MFC-420CN	✓	✓	✓	✓
52.	Brother	MFC-425CN	✓	✓	✓	✓
53.	Brother	MFC-3240C	✓	✓	✓	N/A
54.	Brother	MFC-7420	✓	✓	✓	N/A
55.	Brother	MFC-7820N	✓	✓	✓	N/A
56.	Brother	MFC-8840D	✓	✓	✓	N/A
57.	Konica Minolta	2480	✓	✓	N/A	N/A
58.	Samsung	SF-565P	✓	✓	✓	N/A
59.	Samsung	SCX-4100	✓	✓	N/A	N/A
60.	Samsung	SCX-4720F	✓	✓	✓	N/A